LEARNING FINALE

TUTORIAL 8: ADVANCED NOTATION TOPICS

The Special Tools Tool 91
The Note Mover Tool: Cross-staff notes 95
Correcting split point errors 96
Working with inner voices: Layers 96
Working with inner voices: Voice 1/Voice 2 98
Measure numbers 101
Beat charts 102
Tuplets 103
Reduce/Enlarge Tool 105
More on the Page Layout Tool 108
Optimizing staves 109
Measure layout 111
Part extraction 1: Special Part Extraction 112
Part extraction 2: Splitting into separate files 114
Part extraction 3: Print Parts command 115

MAKING THE MOST OF FINALE

Working from templates 117
Sequence of events 117
Recovering deleted music 118
Speed tips 1: Minimizing screen redraws 119
Speed tips 2: RAM disks 120
Links to the rest of the world 122
The next Finale 122

INDEX TO VOLUMES I II III

TUTORIAL 1:
GETTING STARTED

If you haven't already done so, install your Finale software. The *Finale Startup Guide* provides instructions for installing Finale onto your hard disk from the floppy disks that came in your Finale package. You won't be needing your synthesizer in this first tutorial, but the *Finale Startup Guide* also contains instructions for setting up your MIDI system.

STARTING FINALE

- With your computer running, log on to the drive you installed Finale on (usually C:).
- Change to the FINALE direct ry by typing "cd\finale" at the DOS prompt and pressing Enter.
- Start Finale and simultaneou y open the tutorial file named TUT01.MUS by typing "tut 01" at the C: (or whate r drive Finale is installed on) and pressing Enter. Be sure to include the space between " t" and "01".

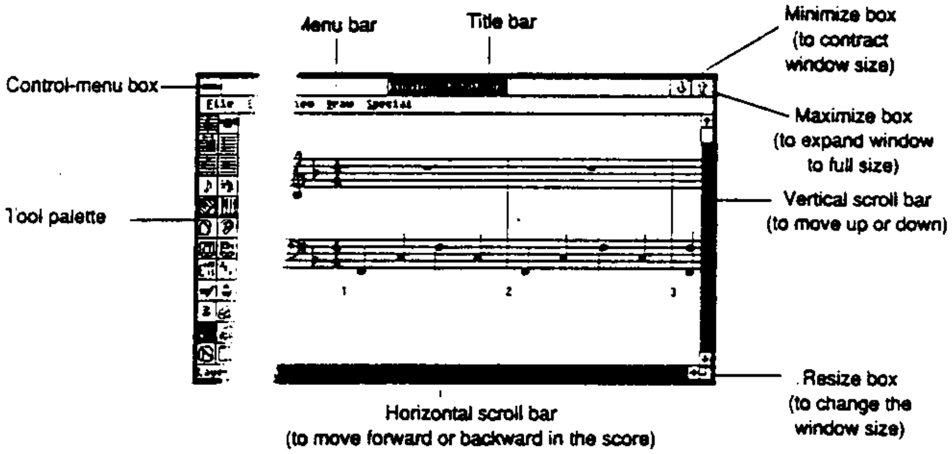
  The Finale Installer set up a atch file for you that automatically runs Windows, then Finale, and then any of the orials from the TUTFILES subdirectory (in the FINALE directory). By typing "tut". space, and then the number of the tutorial file, you're instructing Finale to open file starting with TUT and ending with the number you specify.

  If you're already running ndows, and you are viewing MS-DOS EXECUTIVE (perhaps you exited after ng "A Ten-Minute Taste"), find the file named TUT01.MUS in the TUT ES subdirectory (FINALE directory) and double-click it. When you double-click a ale (.MUS) file from MS-DOS EXECUTIVE, Finale is started and the file is ope l.

  After a moment, you'll s simple piano arrangement of "Frère Jacques" appear on the screen. The left-hand pa as been prepared for you. In this tutorial, you'll finish the melody.

  Take a look around the een. On the left side you'll see two columns of tool icons—square tiles, each contai g a symbol representing its function. Across the top of the screen, you'll find the s dard Windows menu bar. The right side of the screen has a vertical scroll bar, whic ou'll use to move the music you're viewing up or down. Across the bottom of the scree . a horizontal scroll bar, which you'll use to move left or right through your piece.

Fig 1



Menu bar
Title bar
Minimize box (to contract window size)
Control-menu box
Maximize box (to expand window to full size)
Vertical scroll bar (to move up or down)
Tool palette
Resize box (to change the window size)
Horizontal scroll bar (to move forward or backward in the score)

Notice that Finale matically fills empty measures with whole rests (hereafter called *default whole rest* at's just to save you time, and it's a feature you can turn off if you want. You'll otice that the music is displayed on a continuous horizontal staff system, stretching essly off to the right. This is Finale's startup view, called Scroll View. Try clickin right and left arrows in the horizontal scroll bar at the bottom of the window. Each time you click, Finale scrolls the music forward or backward by one measure.

If you're new to Windows, take a moment to drag the mouse across the menu titles at the top of the screen, noticing how the lists of commands drop down as you hold the button down on each title. If you release the mouse button while the pointer is on a menu title, the menu commands will remain. This allows you to view the commands and use their *mnemonics*. A mnemonic is a unique character in the menu command that allows you to select the command by pressing the key that corresponds to the character. Mnemonic keys are underlined in each menu. Click in the work area of the window or on a menu title (not on a menu command) to "close up" the drop-down menu.

You can also use a mnemonic for the menu itself by holding down the ALT key and pressing the key that corresponds to the menu title's underlined character.

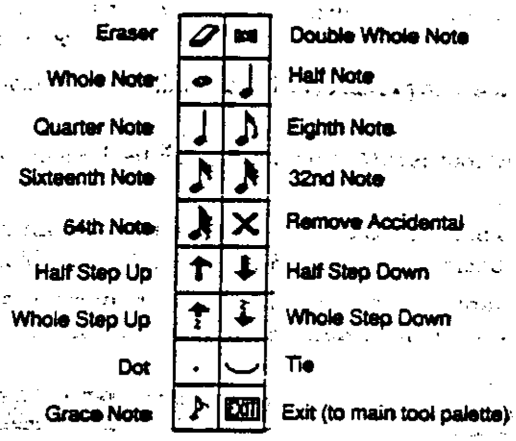
- Click the Mass Mover Tool icon on the tool palette. Not only does the icon become *highlighted* (turn black), but there's now a fifth menu at the right end of the menu bar: the MassMover menu. Several of Finale's menus appear only when you select certain tools, so they're out of your way until you need them.

Now that you've had a look around, let's get to work on our masterpiece. If measure 1 of the piece isn't at the left side of your screen, click the left scroll bar arrow until it is.

ENTERING MUSIC BY HAND

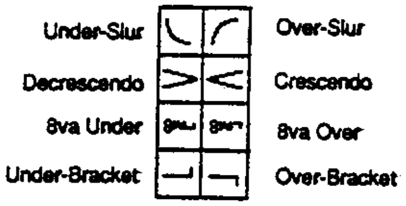
Finale offers five different methods for entering music. Some will appeal to you more than others. Let's start with Simple Note Entry, which is easy to learn and doesn't require a MIDI keyboard.

- Click the Simple Note Entry Tool . You'll notice that the standard set of tool icons is replaced by a second palette, containing notes of different values and other symbols.



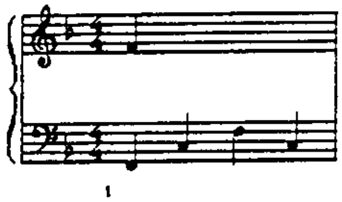
HALF STEP UP: #

"Smart Shape" Tools:

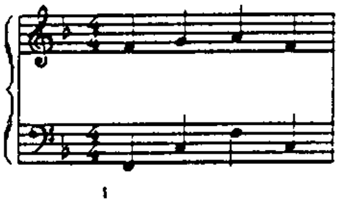


SLURS = LEGATOS

- Click the Quarter Note icon . The Quarter Note icon is highlighted.
- Move the cursor to the first measure of the top (treble clef) staff. You may notice that as you drag the cursor above and below the staff, Finale draws temporary ledger lines to help you place new notes.
- Click the F space anywhere in the first measure. A quarter note appears.

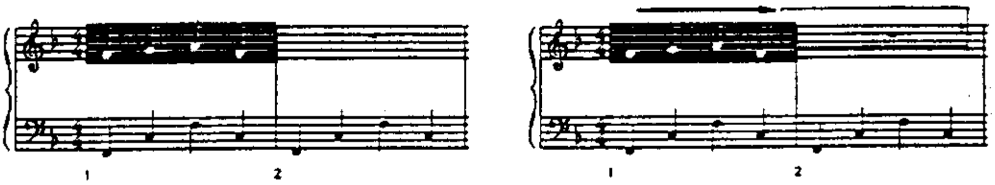


- Click the G line just to the right of the first note. Another quarter note appears and both notes are adjusted for proper spacing.
- Add the A and the F in the same way. If you make a mistake, there's an Eraser at the upper left of this tool palette. Select it, then position the cursor on any note you want to remove. A single click *on* the notehead turns it into a rest of the same value. A single click *above or below* the note removes the note completely.

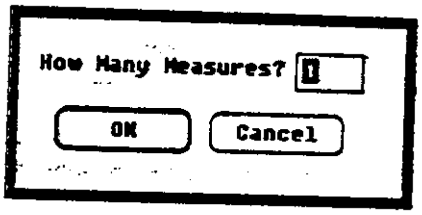


One nice thing about Finale is that you never have to enter the same music twice. For example, we know that the second measure of "Frère Jacques" has exactly the same melody as the first. Instead of reentering these four notes, you can just copy the first measure into the second.

- Click the Exit icon . The Exit icon always takes you back to the standard full tool palette.
- Click the Mass Mover Tool . Use the Mass Mover tool for copying, moving, and erasing music.
- Click the first measure of the top staff. The measure becomes highlighted because you've *selected* it, or told Finale that this is the measure you intend to manipulate.
- Drag the first measure to the right until its image is superimposed directly on the second measure. A dotted outline of the selected measure moves with the cursor.

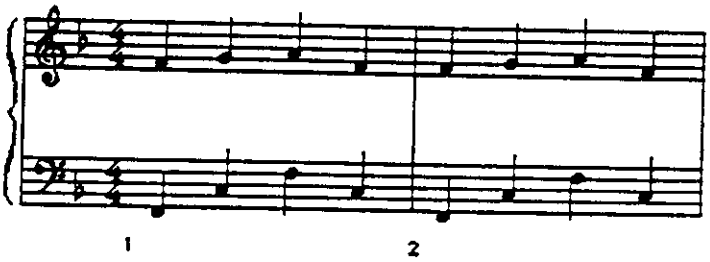


- Release the mouse button. The program asks you how many times you'd like measure 1 copied. Since you're only copying it to measure 2, the default value of 1 in the How Many Times dialog box is correct.



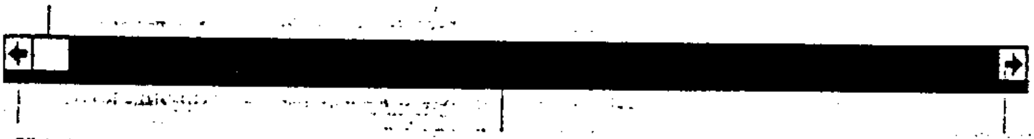
How Many Measures? 1

- Click the OK button (or press the Enter key, which is the same thing as clicking any outlined Windows button). Voila! You've just copied the music from measure 1 into measure 2.



Now finish entering the melody.

- Click in the shaded area to the right of the white box in the horizontal scroll bar. If you click to the right of the *scroll box* (the white square box), Finale moves your view of the music to the right by one screenful. If you click to the left, your view shifts to the left. Remember that you can also advance one *measure* at a time by clicking the right and left arrows.



Drag the scroll box to jump to another point in the score.

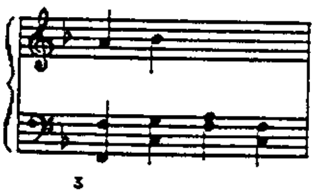
Click the left arrow to move backward one measure.

Click to the right of the scroll box to advance one screenful of measures. (Click to the left to move back a screenful.)

Click the right arrow to move forward one measure

In any case, adjust your view so that measure 3 is the first measure on the screen.

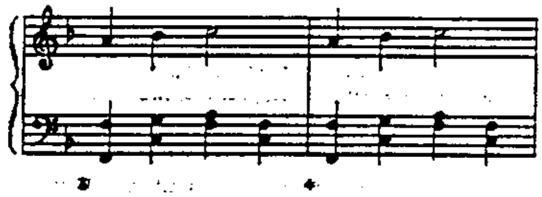
- Click the Simple Note Entry Tool ♪ again, and select the Quarter Note ♩. Enter the first two notes of the third measure by clicking the staff:



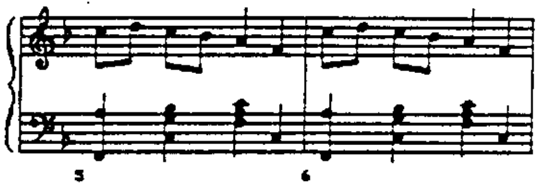
The next note in this measure is a half note, so you'll have to change rhythmic values.

- Click the Half Note 𝅗𝅥, and click the C space in the third measure. A half note appears.

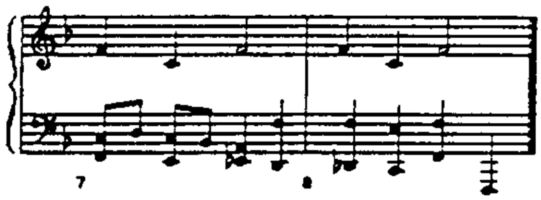
- Complete the fourth measure. Either copy the third measure to the fourth using the Mass Mover Tool or click the notes into the fourth measure as you did in the third.



- Click the right arrow on the horizontal scroll bar until measure 5 is the first measure on the screen. Click the Eighth Note and enter the music for this measure and the next, as shown below. You'll notice that Finale automatically beams the eighth notes together. You can change the beaming pattern at any time. For the moment, Finale beams the eighth notes according to the time signature (4/4, so notes are beamed in quarter-note groupings).

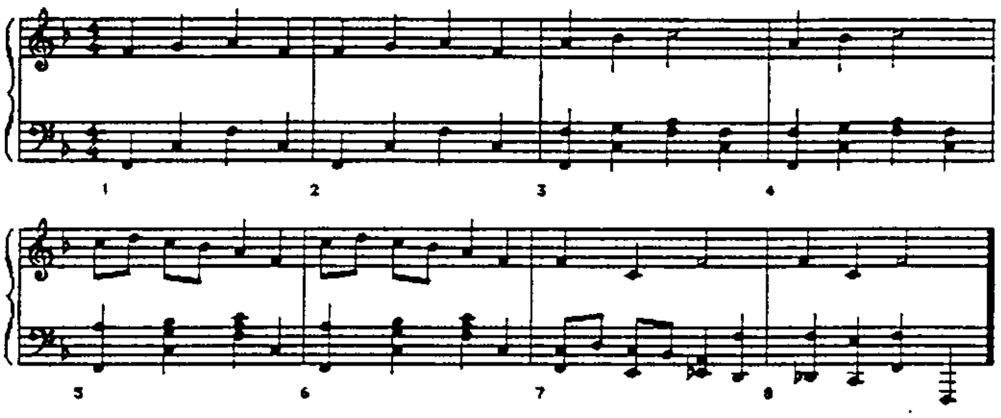


- Complete the melody by scrolling to the last two bars and clicking the notes in.



Again, if you ever make a mistake, select the Eraser and click above or below any unwanted note.

Congratulations! You've completed your first Finale melody.



CHANGING VIEWS

Before going on, you should get accustomed to moving around your score.

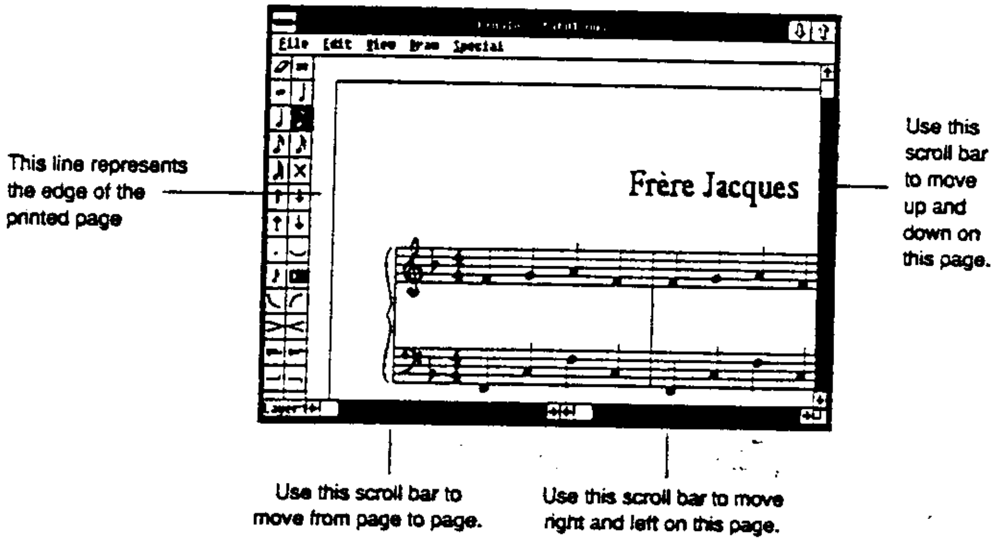
- Click the scroll box in the horizontal scroll bar (and hold the mouse button down). A "Go to Measure" indicator appears. As you slide the white square left or right, the indicator changes, telling you the number of the leftmost measure you'll see if you let go of the mouse button.

- Slide the mouse all the way to the left, so that the indicator says "Go to Measure 1." Release the mouse button. You're back at the beginning of the score.

  Finale offers you the choice of two views of your music. So far, you've been working in Scroll View, where the music is a continuous horizontal band. Finale also has a Page View, where you see the music laid out like a page of sheet music. Most of Finale's tools work equally well in either view, although you'll find that the computer redraws the screen in Scroll View faster than in Page View.

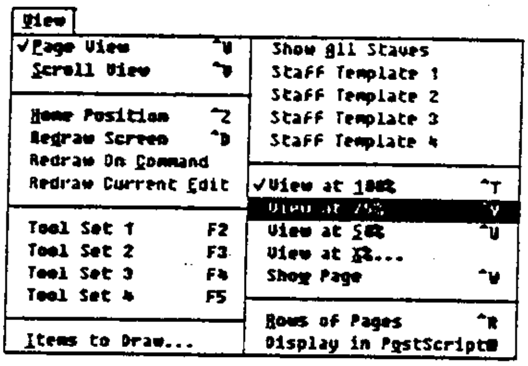
- Choose Page View from the View menu.

  As you can see, the title has already been added in this piece. Titles, page numbers, and other page-oriented text are visible only in Page View. You'll also notice that there are *two* horizontal scroll bars in Page View: the left one moves you from page to page, and the right one moves you from left to right on the current page.


File
Edit
View
Draw
Special
Frère Jacques
This line represents the edge of the printed page
Use this scroll bar to move up and down on this page.
Use this scroll bar to move from page to page.
Use this scroll bar to move right and left on this page.

Unless you have a large screen, you can't see very much of the music right now. It would help if you "zoomed out"—by selecting a smaller view percentage.

- Choose View at 75% from the View menu. Since the View menu is chock full of commands, it is separated into two columns. View at 75% is in the second column. The screen picture redraws at 75% of its original size so you can see much more of the page.



You haven't reduced the *printed size* of the music, you've simply changed the way it's displayed on the screen. The music will still print at full size.

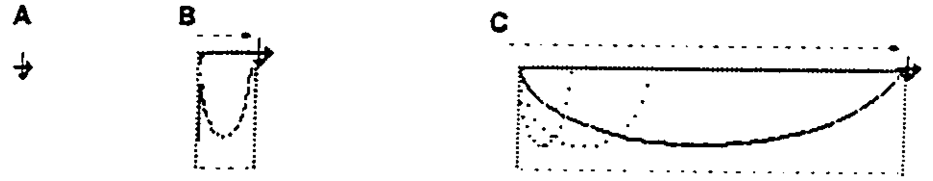
ADDING A PHRASE MARKING

As a quick exercise, let's add some phrase markings to the score. Finale offers two methods for adding slurs and phrase markings. The simplest method is *Smart Shapes*.

Here's how to do it.

At the bottom of the Simple Note palette you'll see icons for slurs, crescendos, and 8va markings. These are called Smart Shapes because they behave intelligently. If the measure widens, so does the Smart Shape attached to it. If a Smart Shape crescendo begins at the end of one line of music and continues onto the next, it automatically breaks in two.

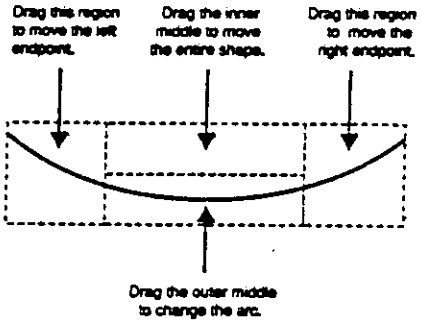
- **Click the Under-slur icon ⌣.**
- Position the cursor just under the first note of the melody (in the upper staff). The cursor, you'll notice, has an up arrow, pointing to the staff to which the Smart Shape will be attached.
- Double-click the mouse, but *hold the button down* on the second click. Drag the mouse to the right, to the end of the second measure. You've just drawn a phrase marking. As long as you hold the button down, you can keep moving the endpoint of the phrase marking.



To create a Smart Shape phrase marking, double-click where you want it to begin (A). Without releasing the mouse button, drag to the right (B). Release the mouse when the right endpoint of the phrase marking is where you want it.

- Release the mouse button. Take a look. Is the phrase marking exactly where you wanted it? Does it arc too high or too low?

  A Smart Shape is easy to edit. When a Smart Shape is surrounded by a rectangle, it's selected. This rectangle is divided into four areas:


Drag this region to move the left endpoint.
Drag the inner middle to move the entire shape.
Drag this region to move the right endpoint.
Drag the outer middle to change the arc.

If you click and drag in the right or left thirds of the rectangle, you reposition the phrase marking's endpoints. If you drag the outer middle section, you can change the arc of the phrase marking (or the width of a crescendo's opening). If you drag the inner middle section, you move the entire shape. If you do any of this dragging while pressing Shift, you can "constrain" your cursor to perfect horizontal or vertical movements. Furthermore, if you drag the outer middle section of a slur or phrase marking while pressing CTRL, you can create an asymmetrical arc instead of the default symmetrical arcs.

- Position the cursor at the bottom of the arc. Drag upward to decrease the arc of the phrase marking. Now create another phrase marking.
- Position the cursor below the first melody note in measure 3. Double-click and drag to the end of the measure. The new phrase marking displays the reshaping rectangle, letting you know that it's selected. The first one you drew, meanwhile, is no longer selected. Instead, it displays a small square handle. To select a Smart Shape that doesn't display its reshaping rectangle, click its handle.

Feel free to experiment with these Smart Shapes. Decrease the depth of the second phrase marking you created, if you want. Try adding a crescendo or decrescendo.

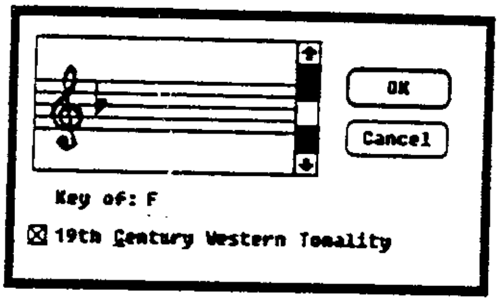
To delete a Smart Shape, first make sure its icon in the Simple Note palette is selected. Every Smart Shape of its type displays a small square handle on the screen (unless it's already been selected, in which case it has a reshaping rectangle). Click the handle to select the shape—and press the Delete key (Del).

- When you're done, click the Exit icon ▣ on the Simple Note palette and you'll return to the full tool palette. If phantom pieces of the Smart Shape remain, choose Redraw Screen from the View menu.

CHANGING THE KEY

As a final experiment, let's change the key for the whole piece.

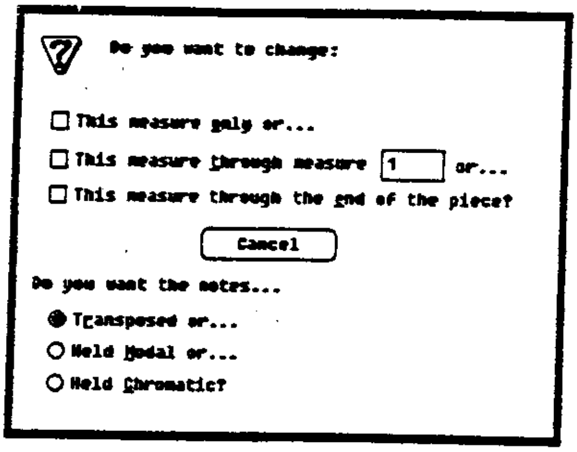
- Click the Key Signature Tool ▣. A handle appears above the beginning of each measure.
- Click the handle at the beginning of the first measure. A *dialog box* appears. Finale displays a dialog box when it's requesting some information from you, or offering you several options. In this particular dialog box, you click the up arrow to add sharps to the key signature (or subtract flats) and click the down arrow to add flats (or subtract sharps).



Key of: F

☒ 19th Century Western Tonality

- Click the up arrow on the scroll bar twice, so that one sharp appears. You're transposing the song up a whole step, to G.
- Click OK (or press Enter). Another dialog box appears, asking for what region you're changing the key.



Do you want to change:

☐ This measure only or...

☐ This measure through measure 1 or...

☐ This measure through the end of the piece?

Do you want the notes...

● Transposed or...

○ Hold Modal or...

○ Hold Chromatic?

You want the third choice.

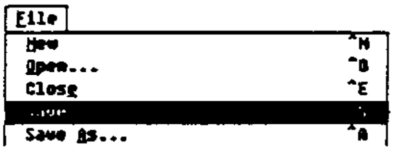
- Click "This measure through the end of the piece?" You don't have to click the check box itself. As in any Windows dialog box, you can click directly on the *words* "This measure through the end of piece?" When you do, the dialog box goes away, and your piece is instantly transposed to the key of G.

SAVING YOUR WORK

When you opened this file, your computer transferred the song from the disk into its memory. At this moment, all the changes you've made to "Frère Jacques" exist only on the screen. If someone trips on the computer's power cord, all of your work will be lost, and you'll be left with the original, incomplete "Frère Jacques".

For this reason, it's a good idea to save your work back onto the disk at regular intervals—perhaps every 15 minutes or so. To save your work on the disk:

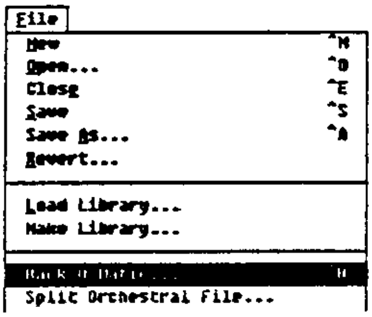
- **Choose Save from the File menu or press CTRL-S.** By pressing S while holding down the CTRL key you can reduce the number of keystrokes it takes to choose Save from the File menu. This is known as an accelerator key. Other accelerator keys are indicated to the right of the menu commands they correspond to.



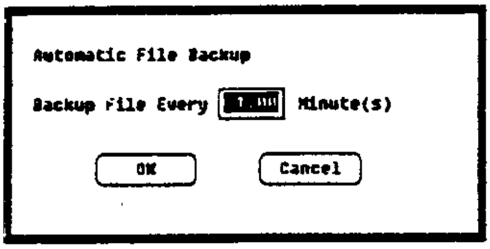
Your changes have now been saved on the hard disk. (You still have an untouched copy of this file and all the tutorial files on the Finale Installer Disk(s) that came with the program).

If you're afraid you might forget to save your work, and run the risk of losing some of your changes in the event of a power or system failure, consider using Back-O-Matic. Let's take a look.

- **Choose Back-O-Matic from the File menu.**



You'll see a dialog box that lets you specify how often, to the hundredth of a minute, you'd like a copy of your current work saved:



Backup File Every 1.00 Minute(s)

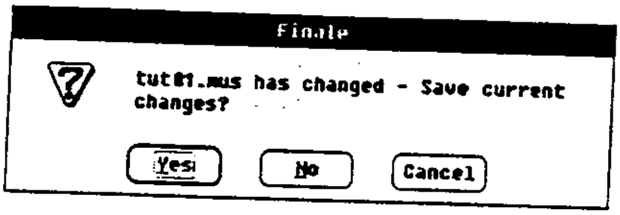
Back-O-Matic doesn't really save changes to your original file, it creates a second, or *backup*, copy of the piece, and regularly updates that backup copy with your changes. That way you can save the master (original) copy as often as you remember to—and if you forget, Back-O-Matic has created a duplicate that it's responsible for keeping up-to-date.

For the moment, you won't be needing Back-O-Matic, because you're almost finished.

- Click Cancel (or press ESC). The Back-O-Matic dialog box goes away. ESC is the Escape key (labeled "Esc" on your computer keyboard). Use it as a keyboard shortcut to clicking a Cancel button.

WHEN YOU'RE READY TO CONTINUE

Choose Close from the File menu. If you haven't saved your work, Finale lets you know:



tut01.mus has changed - Save current changes?

Click Yes if you want your changes saved on the disk. Click No if you want your changes ignored (the file will remain as it was last saved).

If you want to pursue Simple Note entry as a music-input method, here's another technique you may find useful. Instead of clicking a rhythmic-value icon before entering a note, press a number key on the computer keyboard (use the number keys along the top of the keyboard, not the numeric keypad at the right) *as you click the staff.* Each number key corresponds to a rhythmic value: the 5 key means quarter note, the 6 key means half note, and so on. Thus, to enter a whole note on the staff, you'd click the staff while pressing the 7 key, no matter what rhythmic-value icon is currently selected in the Simple Note palette.

A table showing which number keys correspond to which rhythmic values appears on your Quick Reference Card. If you want to take time out for some experimentation before proceeding to Tutorial 2, choose New from the File menu.

If you'd rather move on, go right ahead to the next tutorial. If you've had enough for one lesson, choose Exit from the File menu. You exit the program and return to MS-DOS EXECUTIVE.

FOR MORE INFORMATION

Some of the entries in the *Finale Encyclopedia* contain mini-tutorials pertaining to topics you've just covered. See, for example:

Copying music
Page View
Step-time music input (Simple Note Entry Tool)
Key signatures
Slurs

TUTORIAL 2.

SPEEDY NOTE ENTRY AND EDITING

While Simple Note Entry is useful for quick editing and working without a MIDI keyboard, a far faster and more efficient method of music entry is Finale's Speedy Note Entry Tool, particularly when used in conjunction with a synthesizer. With this tool, you can enter music very quickly, with one hand on the synthesizer and the other on the computer keypad. You can edit existing music with equal ease.

In this tutorial, you'll explore the Speedy Note Entry Tool in depth, and you'll see some of Finale's MIDI skills, both input and playback.

A WORD ABOUT MIDI

MIDI (for Musical Instrument Digital Interface) is an electronic language that computers and synthesizers speak to each other with. Most MIDI devices are keyboard synthesizers, but there are also guitar, violin, wind, drums, and even voice MIDI controllers. In this manual, the term synthesizer refers to whatever MIDI device you're using.

If you need help hooking up your synthesizer, take a look at the section called "Setting Up Your MIDI System" in the *Finale Startup Guide*. If you begin this tutorial and find that your synthesizer isn't behaving the way it should, you may want to consult Appendix 4 in *Finale Reference*, called "More on MIDI," because it contains a MIDI troubleshooting section.

CREATING A NEW FILE

There are hundreds of variables in the appearance of published music notation: thickness of the staff lines, size of the notes, distance between accidentals in a key signature, and so on. Finale will let you change its settings for almost every variable you can think of.

However, you probably don't want to have to set Finale up with your favorite set of design rules each time you create a new piece. Teaching Finale precisely how you like your music to look could take you half an hour every time you started the program.

Fortunately, Finale 1.0 lets you determine all these variables once, after which it remembers your preferences for all future pieces. In your FINALE directory there's a file called DEFAULT.MUS. This is nothing more than a blank Finale file that's been customized: a dummy title was put in, page numbers were put at the bottom of the page, a decision was made about the spacing of the notes, and so on. As long as this file is in the *same directory* as FINALE.EXE (the Finale program itself), those parameters will be preset each time you start Finale from the Finale directory or when you choose New from Finale's File menu. For this reason we recommend starting Finale from the Finale directory. In all three volumes of the Finale manual, you'll see references to the DEFAULT.MUS being "in place"—in other words, in the same directory as FINALE.EXE.

Of course, you can and should create your own default file, using your own favorite setup. The one we've provided is meant to serve as an example. When you're finished with these tutorials, simply create a new file (or modify the one we've provided), and make sure you title it DEFAULT.MUS. (If you ever *do* want to start completely "from scratch," hold down the CTRL key as you choose New from the File menu. Finale will then ignore DEFAULT.MUS.*)

In this example, you're going to create a new file. So before you begin, make sure DEFAULT.MUS is in place (in the FINALE directory). If you haven't yet started Finale, do so now. In MS-DOS Executive, do so by changing to the FINALE directory and double-clicking the FINALE.EXE file. In DOS, at the C: (or whatever drive Finale is installed on), type "cd\finale" at the C: and then type "win finale." If you're already in Finale, choose New from the File menu. In either case, you should now see an empty single measure on the screen called "Untitled."

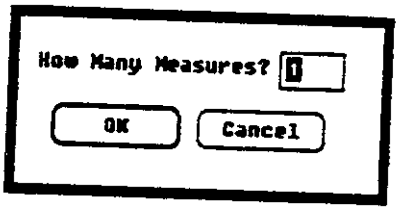
---

* If you plan to work with more than one predefined Finale template (a full-score system, a string quartet configuration, and so on), you can use a similar feature that, in effect, lets you have multiple default files. Press the CTRL key while choosing Open from the File menu. When you select a Finale file from the list box that appears, Finale creates an untitled duplicate of that file; the original is safely preserved on the disk.

ADDING MEASURES

You're about to use the simplest tool in Finale: the Measure Add Tool.

- Click the Measure Add Tool ▤. Finale adds a single empty measure to the end of the score (in this case, there's only one measure in the score to begin with). Of course, if you're working on a 400-measure symphony, clicking the Measure Add Tool could get tiresome. Instead, try this shortcut:
- CTRL-click the Measure Add Tool ▤. You'll recall that CTRL-click means to press the Control key while you click.



How Many Measures? 1

OK Cancel

Finale asks how many measures you'd like to add. The number 1 appears in the text box, meaning that if you click OK, the program will only add one measure. But the "1" is highlighted. In Windows, when a text box is highlighted, anything you type into it will instantly replace what's there.

- Type 15 and click OK (or press Enter). When you type 15, the "1" vanishes. Finale adds 15 measures to your score, giving you a total of 17.

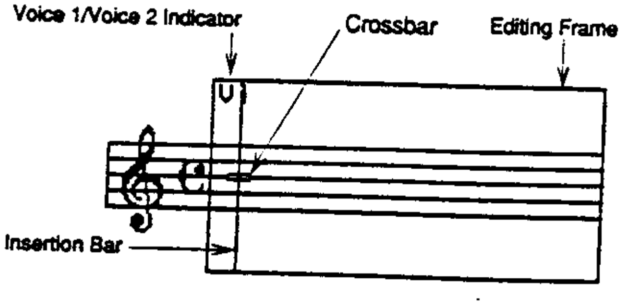
Now you're ready to start entering music with Speedy Note Entry.

SPEEDY NOTE ENTRY

- Click the Speedy Note Entry Tool ◪. You'll notice that there's a new menu—the SpeedOptions menu—whose commands govern the behavior of this tool. Just to check, press (click and hold the mouse button) on the menu title SpeedOptions so that the menu drops down, and make sure that there's a check mark beside Use MIDI Keyboard. Click the menu title to "close-up" the menu.

If you're ever stranded without a synthesizer, you can enter music with the Speedy Note Tool by turning off the Use MIDI Keyboard option. There's even a way to "type in" music, using the letter keys to specify the pitch and the number keys to specify the rhythms of each note. See "Step-time music input (Speedy Note Entry)" in the *Finale Encyclopedia* for details on these options.

- Click the first measure. The measure sprouts a rectangular frame, and there's a thin vertical cursor at the left side of it, called the *insertion bar*. There's also a short horizontal cursor called the *pitch crossbar*, which you'll be using to indicate pitch. In the upper-left corner of the frame, you'll see a tiny "V1," telling you that Finale's ready for you to enter Voice 1 (if you needed to create multiple voices, stems up and stems down, Finale would call them Voice 1 and Voice 2).



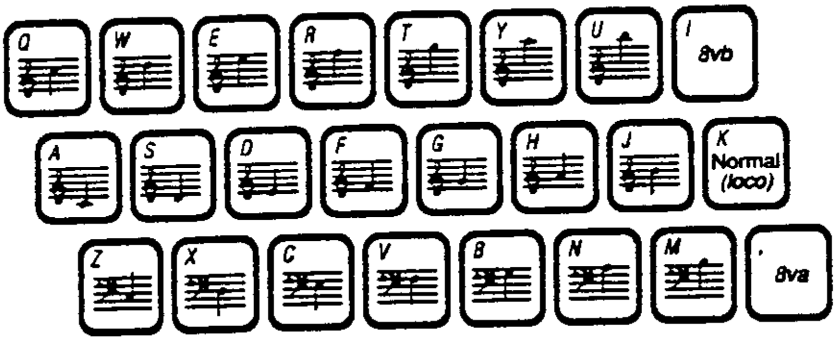
The elements of a Speedy Note Entry editing frame. Use the up and down arrow keys to move the pitch crossbar, and the left and right arrow keys to move the insertion bar. Press the Zero key to exit the frame.

- Play middle C on your synthesizer. While holding down the key, press the 5 key on your computer keyboard. Be sure to use the number keys along the top of the computer keyboard (not the numeric keypad to the right). If your MIDI system is hooked up correctly, a middle C quarter note appears. If your synthesizer is not transmitting correctly to your computer, you'll see a quarter note *rest*. In that case, see "Setting Up Your MIDI System" in the *Finale Startup Guide* or the MIDI Troubleshooting section of *Finale Reference* (Appendix 4). To remove the rest, click it and press Delete.

  Why did you press 5? The number keys have special meanings to Finale. In Finale, 5 means a quarter note. Take a look at this table:

1	64th Note
2	32nd Note
3	16th Note
4	8th Note
5	Quarter Note
6	Half Note
7	Whole Note
8	Double Whole Note

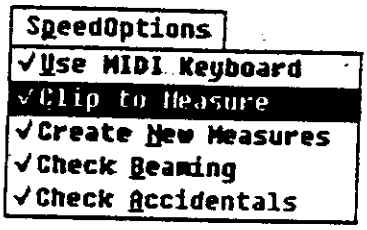
The letter keys also have special meanings to Finale. If you use Speedy Note Entry without a MIDI instrument, you can use letter keys to change pitch:



Since the synthesizer is providing Finale with the pitch information, all you have to do to provide the rhythmic information is press the proper number key. If you're holding down a synthesizer key when you press a number key, you get a note, if no synthesizer key is being held down when you press a number key, you get a rest.

- Hold down the D key on your synthesizer and press the 5 key again; then E (and press 5); then F (and press 5). You've just built the first four notes of a C scale. Before you could really see what you'd done, however, Finale advanced the editing frame, ready for you to fill the second measure. You can turn off this auto-advance feature, which advances to the next measure as soon as the first measure is rhythmically full:
- Press the zero (0) key to exit the editing frame, or click in a blank part of the work area. The editing frame goes away, and the SpeedOptions menu returns.

- Choose Clip to Measure from the SpeedOptions menu. If you look again, you'll see that Clip to Measure no longer has a check mark in the SpeedOptions menu. You've just turned the auto-advance feature off.



- Press the zero key again. The 0 key also takes you back *into* the editing frame you were last in.

  Now that you've turned the Clip to Measure feature off, how will you move from measure to measure?

- Press the left bracket ([ ) key on your keyboard. Finale moves you back to the first measure. The left and right bracket keys move the current editing frame one measure to the left or right, respectively.

  By the way, don't be alarmed that Finale left a blank white spot where the second measure used to be. To speed up the operations of the Speedy Note Entry Tool, Finale doesn't bother to redraw parts of the screen you're not working on. If you want to update the display, choose Redraw Screen from the View menu (or press CTRL-D). Then press the zero key again to reenter the Speedy editing frame.

- Now press the right and left arrow keys on your computer keyboard a few times.

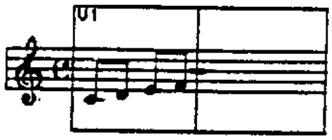
  The insertion bar moves by one note or rest each time you press the right or left arrow keys. You can also move the insertion bar by clicking any note.

EDITING WITH SPEEDY KEYPAD

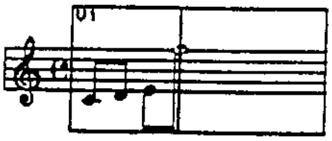
- Position the insertion bar on the first note (middle C) and press the 4 key. In Finale, 4 means an eighth note, so your middle C quarter note has just changed duration (rhythmic value). In Finale, if you enter a rhythm incorrectly, there's no need to delete the note and reenter it: simply line up the insertion bar with the note and press the desired duration key.

  Whenever you change a note's duration (or enter a new note), the insertion bar moves one note or rest to the right, ready for you to enter a new note or rest (or to change the rhythmic value of an existing note).

- Press the 4 key three more times. You've now changed all four notes in this measure to eighth notes. They're automatically beamed.



- Position the cursor squarely on the last note's notehead. Drag this F to the F line an octave higher. In Speedy Note Entry, you can move notes to other pitches by dragging them in this way.



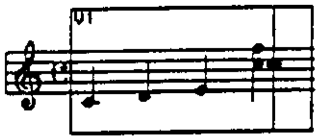
- **Press Delete.** Pressing the Delete key removes a note, rest, or chord from the score.

  To prepare for the next exercise, change all four notes back to quarter notes, as follows.

- **Move the insertion bar back to the middle C, press the 5 key three times, and reenter the last note.**

WORKING WITH CHORDS

- ***Position the insertion bar on the F, and use the Up/Down arrows to move the crossbar to the third-space C.***
- **Press Enter.** There are now two notes in the chord. Using the four directional arrows, you can maneuver anywhere in a measure, and using the Enter key, you can add a note to an existing note or chord. (If the insertion bar is on a rest, the Enter key turns the rest into a note.)

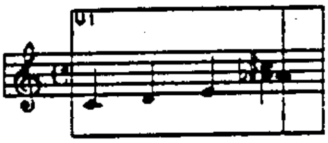


Try moving the crossbar up and down the notes of this chord. If you hold down the Up arrow long enough, Finale will add so many ledger lines that the measure you're working on scrolls downward (or upward, if you're pressing the Down arrow).

- **Double-click the second-space A of the same chord.** Double-clicking is another way to add a note to a chord.
- **Use the Up arrow to position the crossbar squarely on the top notehead of the chord. Press Backspace.** The Backspace key is the opposite of Enter. Backspace removes a note from a chord. (If there's only one note, Backspace turns it into a rest.)

ACCIDENTALS

- **Position the crossbar on the C of this chord. Press the plus (+) key.** The note sprouts a sharp. The plus key adds a sharp to a note (or subtracts a flat).
- **Position the crossbar on the A and press the minus (–) key.** You guessed it: the minus key adds a flat to a note (or subtracts a sharp).



But what if you decide that a note has been "spelled wrong" enharmonically? You can always flip a note to its enharmonic equivalent by using the 9 key.

- **Leave the crossbar on the A♭ and press the 9 key.** The note changes to G♯.
- **Move the crossbar down away from the two notes. Press the 9 key several times.** If the crossbar is on a chord's stem and not on a notehead, pressing the 9 key cycles a chord through various enharmonic spellings.

  For the moment, cycle through until the lower note is an Ab. In the next step, you'll hide the accidental.

- **Position the crossbar on the A♭. Press the asterisk (*) key (don't press Shift-8).**

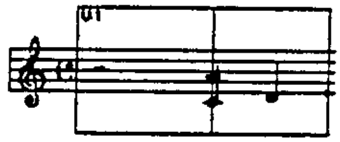
  Pressing the asterisk key *hides* an accidental—or, if none is there, it causes a courtesy or "cautionary" accidental to appear. The note retains its identity—the note that now looks like an A will still play back as an A♭. To restore the accidental, press the asterisk key again.

  Finale can even put an accidental in parentheses. When you've finished this tutorial, you might want to look up "Courtesy accidentals" in the *Finale Encyclopedia.*

INSERTING NOTES OR RESTS

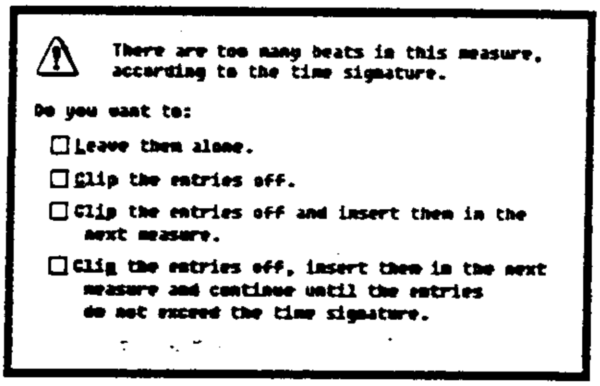
- Position the insertion bar on the two-note chord, and remove it by pressing Delete.
- Move the insertion bar back to the middle C note again. While holding down the Shift key, press the 6 key. When you press Shift, you tell Finale you want to insert a note or rest just *before* the insertion bar. You pressed the 6 key to add a half rest—6 is the keyboard equivalent of the half note value. (If you had held down a key on your synthesizer *while you pressed Shift-6,* you would have inserted a note instead of a rest.)

If all went well, your example now looks like this:



There is a problem in that there are *five beats* in the measure—the half rest and three quarter notes. Because you've turned off Finale's rhythmic-watchdog feature (Clip to Measure), Finale won't notify you until you exit the editing frame.

- Press the zero key to exit the editing frame. Finale displays a dialog box that tells you that there are too many beats in the measure.



There are too many beats in this measure, according to the time signature.

Do you want to:

☐ Leave them alone.

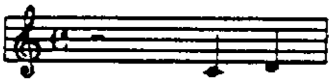
☐ Clip the entries off.

☐ Clip the entries off and insert them in the next measure.

☐ Clip the entries off, insert them in the next measure and continue until the entries do not exceed the time signature.

You're offered four methods of solving the problem. You could leave the extra beats in the measure (by clicking the first check box). You could tell Finale to eliminate any extra beats by removing them from the end of the measure (by clicking the second check box). You could tell Finale to insert any extra notes that it removes from the end of this measure into the beginning of the *following* measure (by clicking the third check box). Or, finally, you could tell Finale to *rebar* the music by redistributing notes throughout the staff until no measure contains more beats than are allowed by the time signature (see "Rebarring music" in the *Finale Encyclopedia*).

- Click "Clip the entries off." Finale eliminates the extra beat—the last E quarter note—and you exit the editing frame.



In the next section, you'll create a lead sheet that begins with a pickup. To complete the first measure's transformation into the pickup measure, the only task remaining is to create a dotted rhythm.

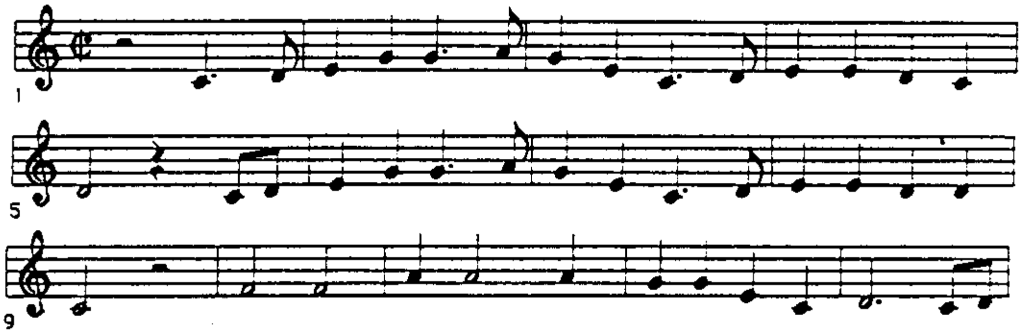
- Press the zero key. You reenter the measure.
- Position the insertion bar on the C and press the period (.) key. Finale adds a dot to the note. If you type multiple periods, multiple dots are added to a note, rest, or chord.
- Press the right arrow, and press the 4 key. You've turned the last quarter note into an eighth note. The pickup measure is complete.

BUILDING A LEAD SHEET

You've now learned the basics of the Speedy Note Entry Tool. Using the MIDI keyboard, you've learned how to enter notes rapidly, change their values, change their pitches, add rests, insert notes, add dots, and move to different measures using the right and left bracket keys.

The measure you've been working on now contains the pickup notes for "Oh, Susannah." Using your knowledge of the Speedy Note Entry Tool, enter the next twelve measures as shown below. For the moment, don't enter any music past measure 13. Remember the Speedy Note Entry keyboard commands you've learned so far.

Key	Effect
. (period)	Add a dot
4	Eighth note
5	Quarter note
6	Half note
] (right bracket)	Go to next measure
[(left bracket)	Go to previous measure
Delete	Remove a note, rest, or chord



When you reach measure 14, you may realize that the last four bars of "Oh, Susannah" are exactly the same as measures 6 through 9. To save time, you can use the Mass Mover Tool's copying function to complete the melody.

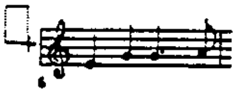
In the first tutorial, you copied a measure of "Frère Jacques" by dragging one measure so that its image was superimposed on another. In this example, however, you can't drag measures to copy them, because the dragging technique only works when you can *see* both source and target measures on the screen at the same time.

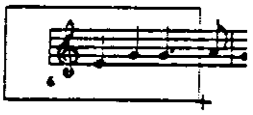
In this case, then, you'll use two Finale copying shortcuts that can be used to copy any amount of music from one place to another, even when the source and the target are hundreds of measures apart.

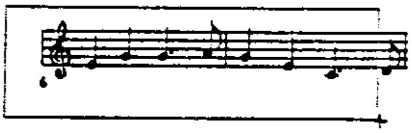
SELECTING SEVERAL MEASURES BY DRAGGING

- Click the Mass Mover Tool.
- Drag the scroll box in the horizontal scroll bar until the counter says "Go to Measure 6." Release the mouse button. If the source measures fit on the screen, you can select them by *drag-enclosing* them.

- **Click just above and to the left of the staff and hold down the mouse button. Drag down and to the right.** Notice that as you drag you create a dotted rectangle. When you let go of the button, any measures that were even partially enclosed by this rectangle are selected (highlighted). In this manual, this process of selecting everything within the dotted rectangle that appears when you drag the mouse is called *drag-enclosing.*







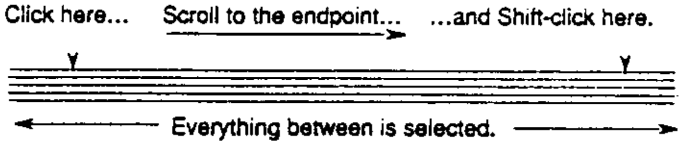
- **"Drag-enclose" measures 6 and 7, then release the mouse button.** The two measures are now selected, ready to copy.

  Our goal, however, is to select measures 6 through 9. Since you can drag-enclose only what fits on a single screen, you can't select all four measures by drag-enclosing (on the standard-size screen). You need yet another way to select measures.

- **Click anywhere on a blank part of the screen to remove the highlighting.**

SELECTING SEVERAL MEASURES BY SHIFT-CLICKING

It turns out that there's a common Windows technique for selecting large amounts of material—in word processors, spreadsheets, and even music programs. It's called Shift-clicking, and it works like this:



You can use this technique to select the four measures you're going to copy.

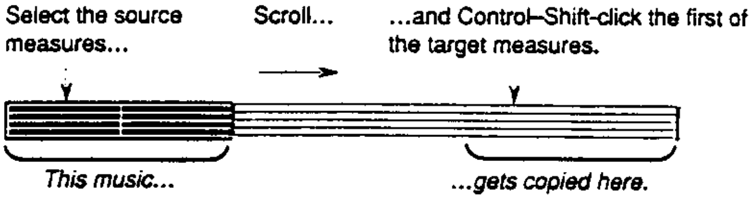
- **Click measure 6. Click the right scroll bar arrow until measure 9 comes into view.**
- **While pressing the Shift key, click measure 9.** Measures 6 through 9 are now selected.

  As a matter of fact, there's yet another way to select a range of measures that's especially handy for selecting large regions, because you don't have to scroll to the endpoint to Shift-click. It's the Set Selection command in the Mass Mover menu. You'll read more about it in Tutorial 8.

COPYING MUSIC TO OFFSCREEN TARGETS

Now you have to copy this music to the end of the piece—but you obviously can't do it by dragging the highlighted measures onto the target measures, since the target measures aren't even on the screen.

Instead, here's another keyboard shortcut. This one, used for copying music from one place to another in Finale, works like this:

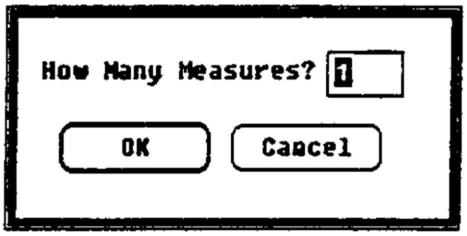

Select the source measures...
Scroll...
...and Control-Shift-click the first of the target measures.
This music...
...gets copied here.

You've already selected the source measures, so proceed as follows:

- **Drag the scroll box until the counter says "Go to Measure 14."**

- While pressing the CTRL and Shift keys simultaneously, click measure 14. That's a very useful technique to remember: CTRL–Shift-clicking the target measures is the same as dragging the image of the source measures onto the target measures.

  A box appears, asking how many times you want the material copied. Once (the default) is enough.



How Many Measures? 1

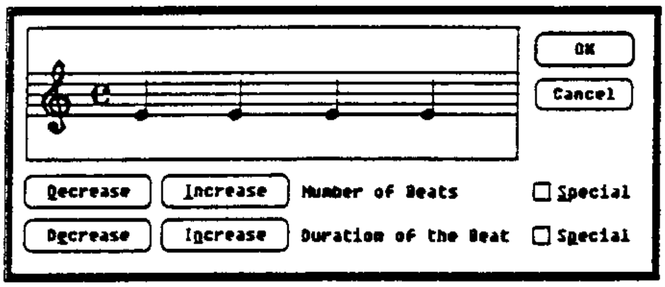
- Click OK (or press Enter). That's all there is to it! You've entered all the music for your first lead sheet.

  Technically, this arrangement of "Oh, Susannah" is in cut time, so let's change the meter. To return to the first measure of the piece, you could use the scroll bar. Instead, try this command:

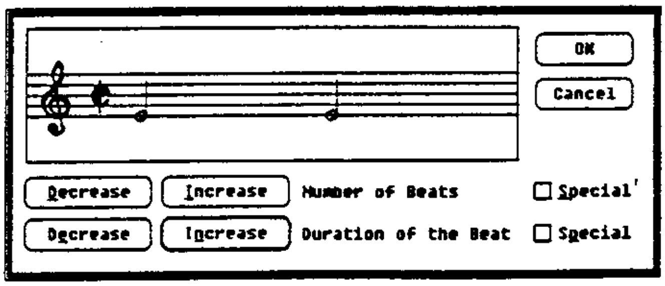
- Choose Home Position from the View menu (or press CTRL-Z). This command always returns you to the first measure of your piece.

CHANGING THE TIME SIGNATURE

- Click the Time Signature Tool ▤, and click the handle at the beginning of the first measure. This dialog box appears:



- Click the upper Decrease button twice. You want the meter to be 2/2—two half notes per bar. These upper Decrease/Increase buttons set the numerator of the meter. By clicking Decrease twice you changed the numerator from 4 to 2.
- Click the lower Increase button twice. The lower Decrease/Increase buttons set the denominator value. You need to increase the *value* from a quarter note to a half note (by changing the denominator from 4 to 2). The dialog box now looks like this:



- Click OK. You're now asked what region is to be affected by the meter change. In this case, you want to change the meter for the entire song.

- Click This Measure Through the End of the Piece? That's it. You've now put "Oh, Susannah" in cut time. (Finale defaults to displaying the cut time [¢] symbol for 2/2. If you'd rather see 2/2, see "Cut time" in the *Finale Encyclopedia*.)
- Choose Save As from the File menu and title your song OHSUSANN. As you type, your title appears in the text box in the Save File Name dialog box.
- Click Save (or press Enter). You've just saved your work to the disk. In the next section, you'll continue working on this song. Leave it on the screen for now.

MORE ON SPEEDY NOTE ENTRY

Combining the speed of Speedy Note Entry with the convenience of Mass Mover copying, as you've just done, can be a quick, accurate method of entering music—especially with practice.

Eventually you'll discover even more shortcuts: To enter several repeated notes, just hold the synthesizer key down continuously while you repeatedly press the rhythmic-value keys (you don't have to restrike the synthesizer key each time). And music only gets entered when you press a rhythmic-value key, so feel free to play your synthesizer as much as you like, without fear that you'll inadvertently throw notes onto the screen. Chords are a breeze, too: just hold down synthesizer keys for *all* the notes in the chord before you press the rhythmic-value key.

You can drag any note of a chord up or down to change its pitch, just as you did with a single note earlier in the tutorial. If you *double-click* and, on the second click, hold the button down, you can drag an entire chord up and down the staff (instead of dragging one note at a time). You can also drag any note or chord horizontally. If you want to drag a note *only* vertically or *only* horizontally, Shift-drag it—your cursor will be "constrained" to perfectly vertical or horizontal movements.

Take another look at the Speedy Note Entry table, and you'll learn about some other features of Speedy Note Entry. For example, if you position the insertion bar on the second of two notes that are beamed together, pressing the slash key (/) will break the beam and pressing it again will rejoin the beam. There's also a key that turns any note into a grace note (and back again)—the semicolon (;).

Pressing the equal (=) key ties a note to the next note. You can tie all notes of a chord at once by positioning the crossbar on the chord *stem*, and not on any notehead. When you're working on a score with several staves, press Shift–Down Arrow to move the editing frame down a staff and press Shift–Up Arrow to move it up.

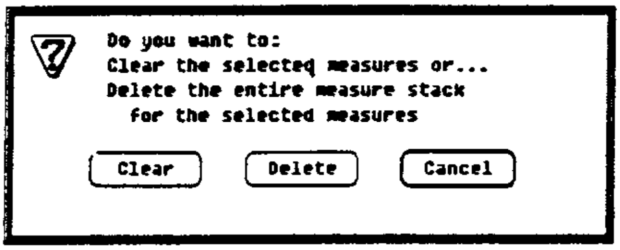
Finally, if you ever want to hide an *entry* (a note, rest, or chord), just position the insertion bar on it and press the letter O key. And when you begin working with Finale's two transparent layers (called Layer 1 and Layer 2), you can flip from one layer to the other by pressing Shift-apostrophe ("). Within each layer, you can have two independently-stemmed voices (called Voice 1 and Voice 2). The apostrophe (') key switches between one voice and the other. (See Tutorial 8 for more information on working with inner voices and layers.)

There's no need to learn these key commands now. But it might be useful for you to keep the Speedy Note Entry table handy, which also appears on your Quick Reference Card.

No doubt you created the lead sheet melody with grace and aplomb. Nonetheless, there may be times when you need to erase some of your music. Here's the quick way to do it. Scroll to the end of the score before proceeding.

ERASING MUSIC, DELETING MEASURES

- Click the Measure Add Tool . A measure is added to the end of the score.
- Use either Simple Note Entry or Speedy Note Entry to add some music to the measure. Any music will do, it will be removed in a moment.
- Click the Mass Mover Tool .
- Click the last measure of the song to select it.



Do you want to:
Clear the selected measures or...
Delete the entire measure stack
for the selected measures

- Press the Delete key. You're asked whether you want to clear the selected measures (erase the notes) or to actually delete the entire measure stack (remove the measures from the piece).
- Click Clear. When you click Clear, you *erase the music from* the selected region. The measure is now empty.
- Click the last measure and press the Delete key once again. This time answer the dialog box that appears by clicking Delete. The entire measure stack is deleted so that the measures are completely removed from the piece.

PLAYBACK

You're about to discover that your folk song masterpiece, "Oh, Susannah," not only looks good—it sounds good, too. If you're not already at the beginning of the lead sheet, scroll back to measure 1 (or press CTRL-Z).

- Click the Playback Tool . A new menu appears, called Playback.
- Click the first measure. Finale packs the measures for playback before the dialog box that gives you options on how to play back your piece appears.
- Click OK. If your MIDI system is hooked up properly, you'll hear Finale play the song. To stop playback, press and hold the mouse button until the playback ends.

  If you don't hear anything, consult "Setting Up Your MIDI System" in the *Finale Startup Guide* or the MIDI Troubleshooting section in *Finale Reference* (Appendix 4).

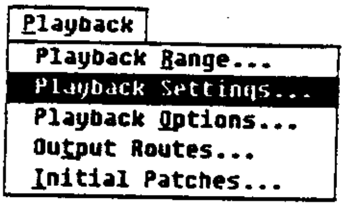
You can play any Finale file using this method. Feel free to listen to any of the tutorial files you'll be working with, even if you're not specifically instructed to do so.

SETTING THE TEMPO

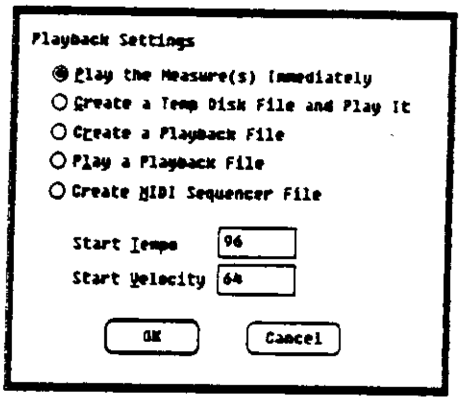
Finale offers a number of ways to set the tempo for a piece. For example, in Tutorial 7 you'll learn how to make tempo markings such as *Allegro, Presto,* and *ritard* actually control the playback tempo.

For now, though, we'll set the tempo the quick way.

- Choose Playback Settings from the Playback menu.



The Playback Settings dialog box appears. The Start Tempo—the number you want to change—is already highlighted.


Playback Settings

● Play the Measure(s) Immediately
○ Create a Temp Disk File and Play It
○ Create a Playback File
○ Play a Playback File
○ Create MIDI Sequencer File

Start Tempo: 96
Start Velocity: 64

- Type 200 and click OK (or press Enter). Then click the first measure again and, when the Disk File Playback Options dialog box appears, click OK. Finale plays your song back at a more sprightly tempo.
- Choose Save from the File menu. It's always a good idea to save your work at the end of a session.

WHEN YOU'RE READY TO CONTINUE

If you've had enough for one session, choose Exit from the File menu. If you want to continue to the next tutorial, leave "ohsusann" on the screen.

FOR MORE INFORMATION

Some of the entries in the *Finale Encyclopedia* contain mini-tutorials pertaining to topics you've just covered. See, for example:

Accidentals
Courtesy accidentals
Chords
Copying music
Cut time
Dotted notes
Erasing
Measures
Playback
Step-time music entry (Speedy Note Entry Tool)

A LEAD SHEET

If you're coming back to Finale, start Finale and open the file OHSUSANN. If the file is already open, let's continue.

If you haven't been through Tutorial 2, or if you want to start fresh, start Finale and open the file named TUT03.MUS in the TUTFILES directory. The file is complete up to this point.

CREATING LYRICS: ON PAGE CREATE

One of Finale's greatest powers is its ability to handle lyrics intelligently. If you provide the lyrics, complete with hyphens between syllables, Finale automatically distributes them to the melody line, neatly avoiding tied-over notes and rests, and centering every syllable under its note. Each syllable is attached to its note. If the note moves horizontally, the syllable moves with it.

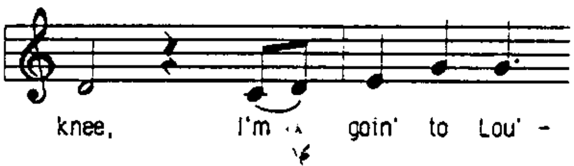
There are two ways to create lyrics within Finale. You can type the lyrics directly into the score, so that you know at all times where you are in the music—a feature called *On Page Create*. Or you may prefer the faster *Click Assignment* method—where you type the lyrics in Finale's text processor, then paste them into the score all at once.

In this tutorial, you'll use both techniques.

- Click the Lyrics Tool 6. A new menu, called Lyrics, appears.
- Click the staff. Although nothing seems to happen, you've just told Finale which staff you want to attach the lyrics to.
- Choose On Page Create from the Lyrics menu. A row of four positioning triangles appears at the left edge of the screen.
- Click *on the staff* above the first melody note. Don't click the *notehead*. Instead, click anywhere within the staff lines above it. A small blinking cursor—the *insertion point*—appears beneath the first note.
- Type "Oh, I come from Al-a-bam-a, with a ban-jo on my knee." Each time you type a *space* or a *hyphen*, Finale automatically moves the insertion point to the next note in preparation for entering the next syllable. Finale automatically scrolls the music as you enter the lyrics, so you always know where you are.

  As you type, there are a few techniques you should know. If you make a mistake, just backspace over it by pressing the Backspace key. (If you backspace to the previous syllable, Finale highlights the whole syllable for you so that you can replace it all at once with anything you type.) If you want to change a word you've already typed, click *on the staff* above the syllable in question so that it's highlighted, then type in your correction.

  As you type the rest of these lyrics, you'll encounter some syllables that are supposed to be held through *two* melody notes:



  In such cases, just skip past the sustained note by pressing the Space bar. Use the Space bar to skip past rests, too. These *additional* spaces are indicated below.

- Position the insertion point beneath beat 4 in measure 5 and finish typing the first verse:

  I'm [Space] goin' to Lou'-si-an-a, my [Space] true love for to see. [Space]

  Oh, Su-san-nah, now don't you cry for me,

  Oh, I come from Al-a-bam-a with a ban-jo on my knee.

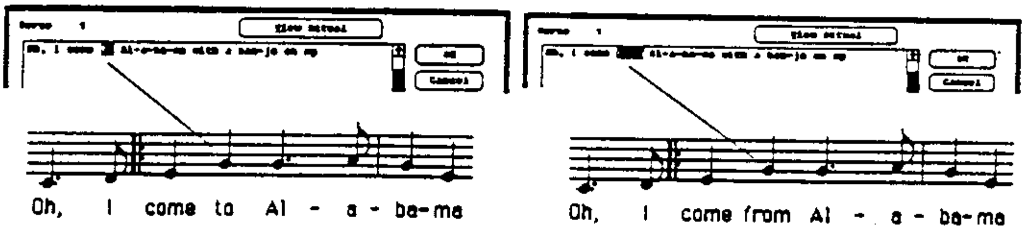
The four small triangles at the left edge of the screen control the baseline of the lyrics (the imaginary line upon which the bottom edges of the words sit). If you drag the leftmost triangle, you'll find that you can move the baseline (and all the attached lyrics) up and down.

CREATING LYRICS: MASS CREATE

While On Page Create is handy, it's not the fastest possible method for entering lyrics. When you're working with very large scores, you might want to use Click Assignment, whereby you enter the lyrics *directly* into Mass Create. Mass Create is Finale's text processor. No matter which method you come to prefer, keep in mind that On Page Create is handy for making quick changes to lyrics already in the score.

As you type, Finale stores each syllable in its built-in text processor, *Mass Create*. Let's take a look.

- **Choose Mass Create from the Lyrics menu.** Sure enough, there are your lyrics in their raw text form. It's important to understand that the Mass Create window and the lyrics in the score are *dynamically linked*. If you change a syllable in the Mass Create window, that syllable automatically changes in the score—and vice versa.



You can correct mistakes in the Mass Create window by backspacing over them with the Backspace key, selecting text by dragging through it with the I-beam mouse pointer and then retyping it, or deleting it by selecting text and pressing the Delete key. If you haven't worked with this kind of text processor before, it may help you to practice some of these techniques.

With this method, you'll enter a complete set of lyrics in Finale's text processor before assigning them to the score. Because the computer doesn't have to redraw the music to keep up with you (as it did with On Page Create), you'll find that you can type much faster in this mode.

Use Mass Create to add the second verse for "Oh, Susannah".

- **Click the Next button.** The verse indicator in the upper-left corner of the Mass Create window now says 2, indicating that Finale's ready for you to type Verse 2.

You can *anticipate* passages where one syllable is sustained through more than one note, so that you don't have to shift the lyrics after placing them.

To do so, you'll create an *invisible syllable* within the lyrics. This syllable is simply a blank character. To create special characters like this in Windows applications, refer to your Microsoft Windows User's Guide, Appendix D, "Using Special Characters". By pressing and *holding down* the ALT key, typing 0160 on the numeric keypad and then releasing the ALT key, you produce a character that Finale thinks of as a syllable, even though it's invisible on the screen. Num Lock can be ON or OFF.

Remember that Finale looks for a *space* or a *hyphen* to indicate that a syllable, invisible or not, has ended. To convince Finale that this character is a syllable, you follow each invisible syllable with a space.

- **Click anywhere within the middle portion of the Mass Create window.** A blinking cursor appears in the window's upper-left corner.
- **Type the second verse exactly as you see it here.** Create an invisible syllable where indicated below. Don't forget to type a regular space *before and after* each invisible syllable.

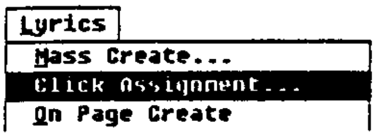
It [ALT0160] rained all night the day I left, the wea-ther it was dry,
The [ALT0160] sun so hot I froze to death, Su-san-nah, don't you cry.

Oh Su-san-nah, now don't you cry for me,
I [ALT0160] come from Al-a-bam-a with a ban-jo on my knee.

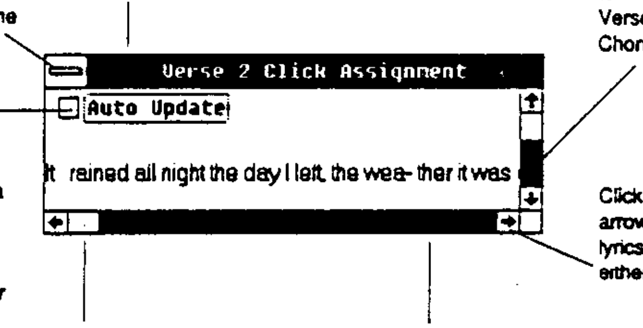
- Click OK. You return to the score.

ASSIGNING LYRICS: CLICK ASSIGNMENT

- Scroll to the beginning of the music (or press CTRL-Z) and click the staff. Before you enter lyrics with either On Page Create or Click Assignment, specify the staff to which your lyrics are going.
- Choose Click Assignment from the Lyrics menu.



A small window appears, containing the lyrics you just typed. If the window obscures your view of the music, you can drag it by its title bar to a new location.



It rained all night the day I left the wea- ther it was

Double-click the Control-menu box when you're done click-assigning.

Drag the title bar to move the window.

Use the side scroll bar to switch from one Verse (or Section, or Chorus) to another.

Select Auto Update if you're click-assigning one syllable at a time and want Finale to widen the measure accordingly after each click.

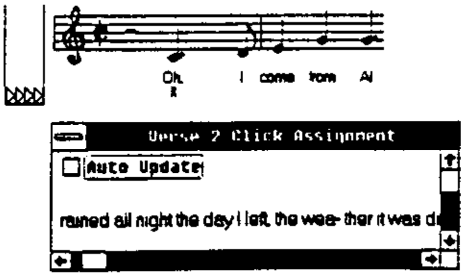
Click the right or left arrows to scroll the lyrics one syllable in either direction.

Drag the scroll box to move quickly to another spot in the lyrics.

Click in the grey area to scroll the lyrics by one window-full.

The four triangles are again at the left edge of the screen. Remember that these control the baseline of the lyrics. Drag the leftmost triangle up and down to move the lyric line closer to or farther from the staff.

- Position the cursor *on the staff* at the location of the first melody note. Click Assignment will only work if you click *on the staff.*
- Click once. The first syllable, "It," jumps out of the Click Assignment window and attaches itself to the first note.

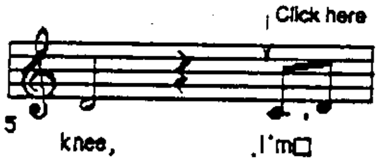


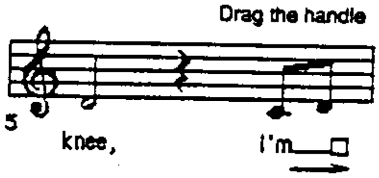
rained all night the day I left the wea- ther it was d

- Move the cursor to the second note, and click on the staff. The next syllable (an invisible one) is now attached to its note.

In this section you'll learn how to add word extensions in Finale. If you don't think you'll be using them, skip ahead to the next section.

- Using the Lyrics Tool, choose Word Extension from the Lyrics menu. Now you must tell Finale which syllable you want to extend.
- Click *on the staff* above the syllable "I'm" (first verse, measure 5). A square handle appears at the end of the corresponding syllable in each verse.





- Drag the top handle to the right until it extends to the next syllable, as shown above. The farther you drag, the longer the underline will be. To remove the underline, click its handle and press Delete.
- Drag the lower handle (of the syllable "The") to the right, too. Repeat the process with the word "my" in measure 7 (remember to first click on the staff above the syllable) and on the second-verse syllable "I" in measure 13.

While it's easy enough to add word extensions at any time, remember that word extensions don't grow longer or shorter if the music expands or contracts. Therefore, if you have long word extensions to add, it's a good idea to create them *in Page View*, and only after you've adjusted the page layout of your piece to your satisfaction. See "Word extensions" in the *Finale Encyclopedia* for a more complete discussion.

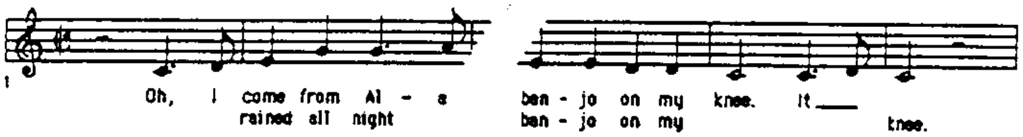
THE REPEAT TOOL (OPTIONAL SECTION)

[illegible]

To be truly complete, your lead sheet needs a first and second ending, requiring the use of the powerful but complex Repeat Tool. If your work won't require repeat barlines—which, in Finale, can affect playback as you'd expect—you're welcome to jump ahead to the next section, "Chord symbols."

In Finale, a repeat barline is simply a signpost that directs the flow of music playback to another measure. A repeat barline doesn't necessarily direct music backward; it could make the music jump to a later measure, as it does if you're using a coda sign. You can build nested repeats, infinite loops—even purely graphic repeat barlines that have no playback function at all.

In your "Oh, Susannah" lead sheet, you'll actually need several repeat barlines—one at the beginning of the score, plus a first and second ending. To make these endings work properly, you need to amend the beginnings and endings of the music itself, adjusting the lyric and inserting the first ending measure, so that the lead sheet looks like this:

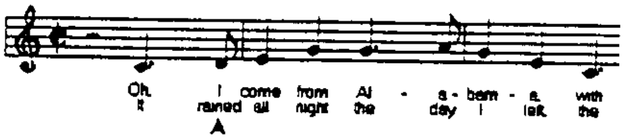


You're welcome to perform these modifications yourself. You'll have to delete the first syllable in the second verse (see "Lyrics—To move or delete a syllable" in the *Finale Encyclopedia*), type it at the end of the first verse (in Mass Create), and then click it into the end of the score with Click Assignment (Lyrics menu). You'll also need the Speedy Note Entry Tool to change the music in the first and second endings, and the Measure Add Tool to create the extra measure.

This click-by-click assignment of lyrics to notes is all very well and good, but it takes time when you have lots of lyrics to assign. If you use the CTRL key, you can distribute all the lyrics with a single click.

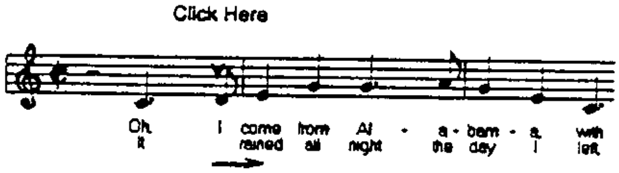
- While pressing the CTRL key, click the third note. Finale now rips through your entire set of lyrics and distributes them to the notes of the song automatically. If you typed the lyrics correctly, Finale enters the second verse without a hitch. Because you created invisible syllables, all syllables should align with their proper notes.

  If you need to adjust the positioning of the second lyric line, drag the leftmost of the four positioning handles up or down.
- Double-click the Control-menu box in the upper-left corner of the Click Assignment window. Take a moment to scroll through the lead sheet and check Finale's work. If you mistyped any of the invisible syllables, the syllables won't be assigned to the proper melody notes.


Oh, I come from Al - a - bam - a, with
It rained all night the day I left the

Fortunately, you can correct this problem in a flash. At each spot where a syllable should be held through more than one note and it is not, you need to tell Finale to push all the syllables to the right by one note.

- Choose Lyric Shift from the Lyrics menu. A dialog box appears, letting you specify the direction you want the syllables shifted. The default, Forward, is what you want.
- Click OK (or press Enter).
- Click on the staff above the *first* syllable you want shifted. Finale shifts the first syllable, and all subsequent syllables, to the right. Now scroll through the rest of the lead sheet to make sure that no more lyrics are misaligned.

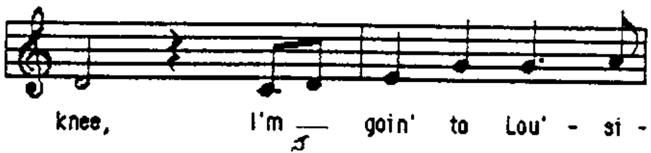

Click Here
Oh, I come from Al - a - bam - a, with
It rained all night the day I left

If you ever make the kind of mistake that you don't want to take the time to fix, you can use Finale's Revert command to revert your file to the way it was when you last saved it. Try this out only if you intend to skip the following optional sections. Here are the steps to take:

- Choose Revert from the File menu. Finale asks if you're sure you want to discard any changes you've made—the addition of lyrics, in this case. Remember that this command will revert your file to the way it was when you *last* saved it.
- Click No. You return to the score, without reverting you file.

ADDING WORD EXTENSIONS (OPTIONAL SECTION)

When a single syllable is sustained through more than one note, it's customary to add a *word extension*, or underline, after it to indicate that it's held beyond the first note:



If you'd rather not bother, open the file named TUT03A.MUS in which these changes have already been made.

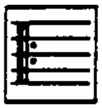
In either case, scroll back to the beginning of the piece. Now you're ready to proceed. Measure 1 is a pickup measure, so you want the first repeat barline to appear at the beginning of measure 2.

To insert a repeat barline, you must first click the Repeat Tool ▤. If you don't see this tool, it may be that Finale's tool palette extends beyond the bottom of your screen.

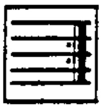
The hidden tools are easy enough to access, however:

- Click anywhere on the tool palette and drag downward. The tool palette scrolls when you drag it, revealing several additional tools. Scroll the palette until you see the Repeat Tool icon ▤.

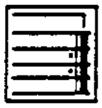
  You can also scroll the palette by Shift-dragging. While holding Shift, click anywhere on the tool palette and drag downward. The palette scrolls so that you can see the tools toward the top of the palette. Scroll back to the Repeat Tool.
- Click the Repeat Tool ▤, then click measure 2. The Repeat Selection window appears, displaying four icons at the top:



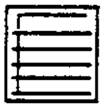
Forward Repeat
(graphic only)



Backward Repeat
(graphic and playback)



Backward Repeat
with Bracket
(graphic and playback)



Multiple Ending Repeat
(graphic and playback)

  The barline on the left—the Forward Repeat—is the one you want.

- Double-click the Forward Repeat barline (the first icon). You return to the score, where the barline is in place.

  Note that you didn't have to tell Finale anything about this barline's playback effects. That's because it has none—a Forward Repeat is purely graphic. As it happens, Finale stores all playback information for a particular repetition in the *second* repeat barline (at the end of the repeated section).
- Scroll to measure 17. The next repeat barline will direct the playback to return to measure 2.
- Click measure 17. This barline will be part of the first ending, so you'll need the Backward Repeat with Bracket.
- Double-click the Backward Repeat with Bracket (the third icon). The Backward Repeat Bar Assignment box appears, asking for details about the playback definition of this repeat barline. To create a graphic barline with no playback function, you could just click OK (or press Enter) at this point.

  If you will be making use of the Repeat Tool's playback capabilities, this would be a good time to learn its terminology.

Target Measure: The Target Measure is the measure to which Finale jumps, or directs playback, when it performs the repeat. In the case of "Oh, Susannah," the Target Measure is 2. (If you leave the Target Measure value at zero, the barline won't affect playback at all.)

Total Passes: Imagine that Finale chalks up a little tally mark next to this repeat barline each time the playback reaches it. The number you type into this box tells Finale how high it should count—how many times it should play the music up to this point—before performing one of the following three Repeat Actions:

Always Jump: This option ignores any number in the Total Passes box. In other words, Finale will *always* jump to the target measure when it reaches this repeat barline.

Jump on Total Passes: If you choose this option, Finale will only jump to the target measure when the playback reaches this barline the number of times specified in the Total Passes box.

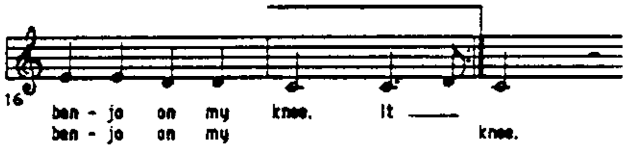
This option isn't often used when you're creating repeat *barlines.* It will come in very handy, however, when you create *text repeats,* which work the same way except that they appear as words in the score ("To Coda," for example) instead of barlines.

Repeat Until Total Passes: You might think of this as the "first ending" option, because it tells Finale not to play past this measure until it's been played for the *second* time (or whatever number you've specified in the Total Passes box).

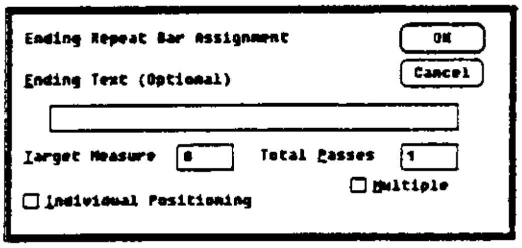
If you haven't completely grasped the purposes of these options, the following "Oh, Susannah" example may make it clearer. If you're wondering what some of the other buttons in this dialog box do, see "Backward Repeat Bar Assignment dialog box" in *Finale Reference.*

Continuing with our example, then:

- Type 2 in the Target Measure box. When the playback finishes the first chorus (and hits this barline), the playback will jump to the second measure of the song.
- Click Always Jump. In actuality, "Oh, Susannah" won't *always* jump," because you'll create a special barline at the *beginning* of the first ending that will be responsible for directing the music to the second ending, skipping over *this* barline completely. In other words, it doesn't matter that this barline has been programmed to produce its repeating effect every time, because the playback will only reach it once. After that, it will be diverted to the second ending.
- Click OK (or press Enter). There it is, in your score.



- Double-click measure 17. Now you're going to create the second "repeat"—the one that will tell Finale to jump *ahead* to the second ending.
- Double-click the Multiple Ending Repeat (the rightmost icon). This dialog box is a bit simpler.


Ending Repeat Bar Assignment

Ending Text (Optional)

Target Measure 0 Total Passes 1

☐ Multiple

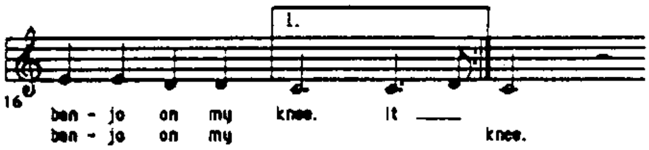
☐ Individual Positioning

- Click in the Ending Text box and type 1 (and a period, if you wish). This is the text (purely graphic) that will appear under the bracket.
- Press the Tab key. In Finale, as in any Windows program, you can press the Tab key to move between controls in a dialog box. The text in the Total Passes box is now selected.
- Type 1. You typed a 1 because the music in this measure (17) is only played once. Thereafter, the playback jumps to the second ending. Here's a simple rule for using the

Multiple Ending Repeat barline: the number in the Total Passes box should *match* the numbers you'd put in the Ending Text box. In this case, both are 1. As a matter of fact, if you leave the Ending Text box empty, Finale will *automatically* display the Total Passes value under the bracket when you return to the score.

If "Oh, Susannah" had three verses, however, you could click Multiple, which presents a box in which you can specify *multiple* "Total Passes" values—in this example, 1 and 2. When you returned to the score, Finale would display "1, 2" under the first-ending bracket.

- **Tab to the Target Measure box and type 18.** When the playback reaches the beginning of this measure, it should jump to the second ending (measure 18).
- **Click OK (or press Enter).** Now both "repeats" are in your score. If you want to adjust their bracket heights, drag the bracket handles up or down. If you want to adjust the new bracket so that it's open-ended to the left, drag the handle at the bottom of the "hook" carefully upward until it's flush with the top of the bracket—then drag the number "1." back into place.



Now all you have to do is to create the second ending.

- **Click measure 18.** The Repeat Selection dialog box appears.
- **Double-click the Multiple Ending Repeat** (the rightmost icon). The Ending Repeat Bar Assignment box appears. You only need to create a purely *graphic* bracket for the second ending.
- **In the Ending Text box, type 2** (and a period, if you wish). You can leave all the other elements of this dialog box alone, since this bracket will have no playback capabilities.
- **Click OK (or press Enter).** That's all there is to it! You now have an elegant and functional set of first and second endings.

  To remove a repeat barline or bracket, click the Repeat Tool, then click the measure. Click the square handle at the bottom of the barline and press Delete.

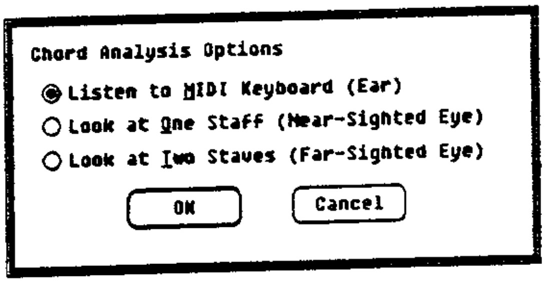
CHORD SYMBOLS (OPTIONAL SECTION)

No true lead sheet would be complete without chord symbols. With a little help from your MIDI keyboard, the process of adding chords can be extremely quick. (If most of your musical work won't require chord symbols, you can skip this section.)

This section assumes that you've completed the "Oh, Susannah" lead sheet up through the last section. If not, choose Open from the File menu and open the file named TUT03B.MUS, which is complete to this point.

- **Scroll to the first measure of the piece, if necessary.**
- **Click the Chord Tool** .

- CTRL-click the first note of the second measure. A dialog box appears, asking which of Finale's three chord analysis options you'd like: Listen to MIDI Keyboard (which has you play the chord on the synthesizer), Look at One Staff (in which Finale examines the notes of the chord where you clicked), or Look at Two Staves (in which Finale examines a complete chord, even if it spans two staves, such as a piano voicing).

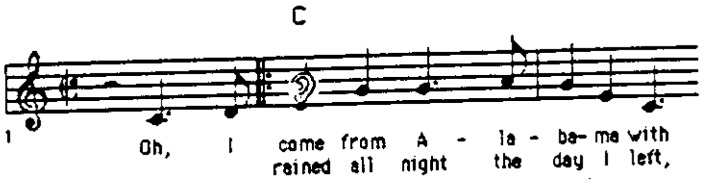


Chord Analysis Options

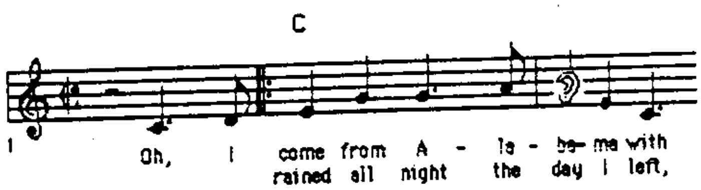
◉ Listen to MIDI Keyboard (Ear)
○ Look at One Staff (Near-Sighted Eye)
○ Look at Two Staves (Far-Sighted Eye)

- Click OK (or press Enter). The default option, Listen to MIDI Keyboard, is the one you want. An ear appears on the note you CTRL-clicked. That means that Finale's ready for you to play the chord.
- Play a C triad, root position, on the synthesizer. It doesn't matter how the chord is voiced or what octave it's in. Just make sure that the bottom note of the chord is a C.

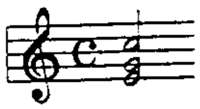
  Finale puts the chord symbol, C, above the staff.


C
1
Oh, I come from A - la - ba- ma with
rained all night the day I left,

- Play a *single* note—any note—above middle C. To signal Finale that you want to move on to the next chord, you always play a single note above middle C. If you want to move backward, play a single note *below* middle C.
- Play three more single notes above middle C. You've just moved the cursor to the next downbeat, where there's another chord.

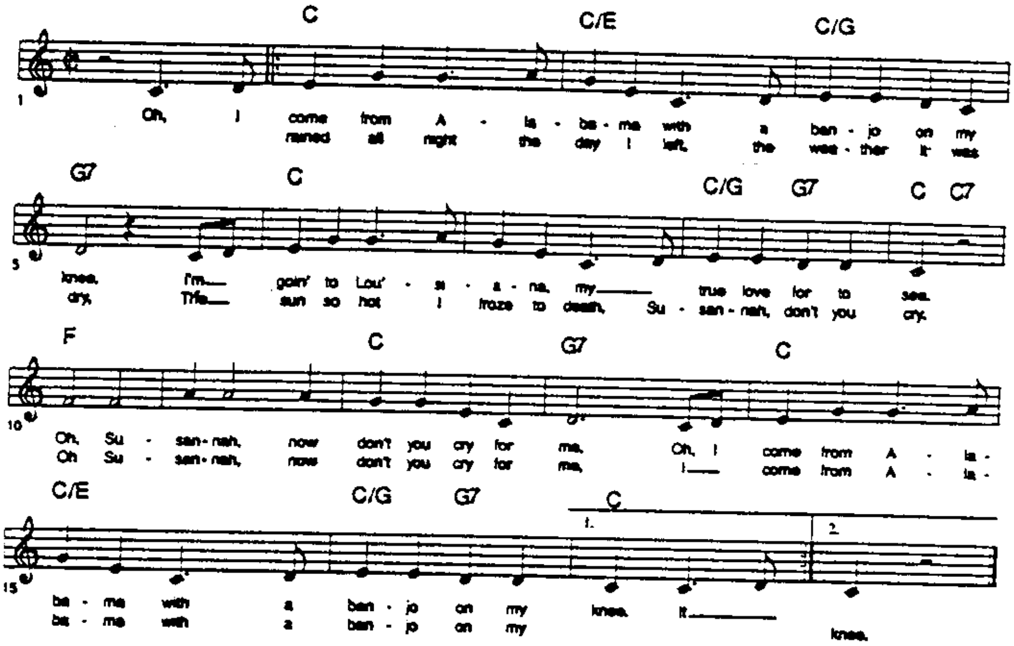

C
1
Oh, I come from A - la - ba- ma with
rained all night the day I left,

- Play another C chord, this time in the first inversion (with an E on the bottom), as shown:



This time, Finale writes C/E—a C triad with an E in the bass.

Continue adding the chords this way: advance to the next spot by playing a single key above middle C, and then play the chord. If you don't play the chord in root position, Finale notates the chord symbol as a triad over a bass note, separated by a slash. You can add any chord symbols you want, but one example is shown here:


C
C/E
C/G
Oh, I come from A - la - ba - ma with a ban - jo on my
rained all night the day I left, the wea - ther it was
G7
C
C/G
G7
C
C7
knee, I'm goin' to Lou' - si - a - na, my true love for to see.
dry, The sun so hot I froze to death, Su - san - nah, don't you cry.
F
C
G7
C
Oh, Su - san - nah, now don't you cry for me, Oh, I come from A - la -
Oh Su - san - nah, now don't you cry for me, I come from A - la -
C/E
C/G
G7
C
1.
2.
ba - ma with a ban - jo on my knee. It
ba - ma with a ban - jo on my knee.

You'll find that Finale has no problem transcribing the G7 in measure 5. You can play seventh chords, ninths, augmented, diminished, and even more complex chords, and Finale will have no problem understanding you. For more information, see "Chord symbols" in the *Finale Encyclopedia.*

- Click the Chord tool or any blank part of the screen when you're finished entering chords. Go ahead—play it back! You'll discover that Finale plays the chord symbols wherever they occur. (You can turn this feature off, if you like. Again, see "Chord symbols" in the *Finale Encyclopedia.*)

  To move a chord symbol, be sure the Chord Tool is selected. Click the note to which the chord is attached, and you'll see its square handle appear. Drag this handle to move the chord symbol. If you click this handle and press Delete, you'll delete the chord. If you double-click this handle, you'll enter the Chord Definition dialog box (see the entry "Chord Definition dialog box" in *Finale Reference* for a more complete discussion).

WHEN YOU'RE READY TO GO ON

This tutorial covered a lot of ground. If you've made it to the end, congratulations. Finale offers a lot of power, and you *can* harness it! If you haven't done so already, choose Save from the File menu. If you think you've done enough for one session, choose Exit from the File menu, and you'll return to MS-DOS Executive.

If you want to go on, leave "Oh, Susannah" on the screen and turn to the next tutorial.

FOR MORE INFORMATION

Some of the entries in the *Finale Encyclopedia* contain mini-tutorials pertaining to topics you've just covered. See, for example:

Chord symbols
First endings
Fonts
Lead sheets
Lyrics
Melisma
Repeats (barlines and text indications)

TUTORIAL 4.
SPACING, LAYOUT, AND PRINTING

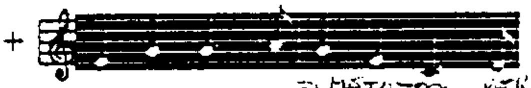
One of Finale's strengths is its spacing and layout capabilities. Using the Mass Mover and Page Layout tools, among others, you can create scores that look like they were aligned and laid out by a professional engraver.

But having utter control over the placement of every symbol you put on the page means that Finale doesn't make many decisions *for* you. In this tutorial, you'll look at some of the steps you can take to ensure a beautiful and precise layout of your scores.

If the "Oh, Susannah" file you've been working on isn't open right now, open it. If you haven't been through Tutorials 2 and 3—or if you want to start fresh—open the file called TUT04.MUS, which consists of the lead sheet completed to this point.

SPACING THE MUSIC

- **Click the Mass Mover Tool** ▣.
- Click just to the left of the staff. This is a quick way to select an entire staff with one click. You'll notice that the whole line becomes highlighted.



→ METATOOL YER 'RESPACING'

- **While pressing the 3 key, double-click anywhere on the highlighted staff.** Finale displays its "chugging truck" cursor, which tells you that the computer is doing some heavy calculating. You'll have to wait until the normal cursor returns before you can resume your work.

  When you use the Mass Mover Tool to move or edit music, a "Press Left Mouse Button to Cancel" indicator appears. Pressing the left (or *only* if you have just one) mouse button will abort the move or edit. You'll find that this works best for relatively large operations.

When Finale's finished, you might notice that the spacing of music and barlines is much more professional looking. Neither accidentals nor lyrics collide, and every measure is exactly as wide as it needs to be. Furthermore, every note in every measure is allotted exactly the right amount of horizontal space. Music spaced in this way is said to have *nonlinear spacing*, as in published music: a whole note doesn't get as much horizontal space as four quarter notes—it gets much less.

This step—pressing a number key while you click on the music—may have been new to you. In time, you'll probably come to make good use of this Finale technique, which is called a *Metatool*.

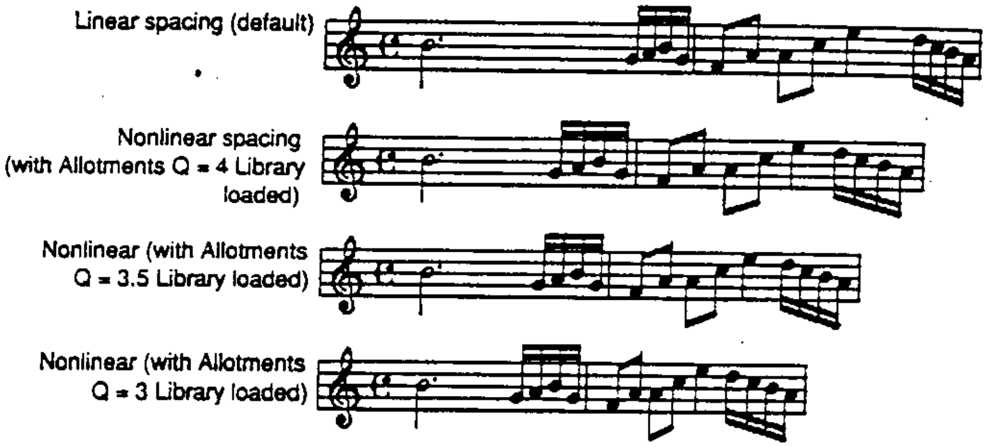
METATOOLS AND ALLOTMENTS

Many of Finale's tools can each have a set of Metatools—keyboard equivalents for more complicated actions. In the Mass Mover Tool, you can think of Metatool 3 (which you've just performed) as the Respacing Metatool. Any selected region—the entire staff, in this case—will be correctly adjusted to nonlinear, professional spacing. You'll be using other Metatools in later tutorials, and eventually you'll learn how to program your own.

[illegible]

Metatool 3 only works well if you have loaded an *Allotment Library* into the piece. An Allotment Library is a table of precise spacing measurements for notes of various rhythmic values, similar to the tables engravers use. You didn't have to load one for "Oh, Susannah," because an Allotment Library, ALOTQ3-5.LIB (where Q = 3.5) has already been loaded into DEFAULT.MUS, from which this lead sheet originated.

As long as DEFAULT.MUS—or a default file you've created—resides in the same directory as FINALE.EXE, you'll never have to load one of these libraries, your spacing allotments will always be ready to go. If you want to load one into an existing piece—or to change libraries—choose Load Library from the File menu, find the LIBRS directory on your hard disk, and double-click one of the three Allotment Libraries we've included. The designations Q3-0, Q3-5, and Q4-0 (in the names of the libraries) indicates that each of these libraries provides slightly different spacing: the larger the "Q" value, the looser (wider) the resulting spacing will be. When you use Metatool 3, Finale uses the Allotment Library you loaded most recently.


Linear spacing (default)
Nonlinear spacing (with Allotments Q = 4 Library loaded)
Nonlinear (with Allotments Q = 3.5 Library loaded)
Nonlinear (with Allotments Q = 3 Library loaded)

Note for the technically minded: Metatool 3 performs a *beat-specific layout* for the selected region. Instead of calculating the correct spacing of every *note* (entry) within a beat, it calculates the correct position of each beat itself (the *sum* of the entries). You can also use Metatool 4, which performs an *entry-specific layout.* Metatool 4 results in a more precise approximation of engraver's spacing, but sometimes gives odd spacing results for two-against-three (and similar) rhythms. Music spaced with a beat-specific layout—Metatool 3—takes fewer calculations, and hence redraws faster. For a more complete discussion of the effects of Metatools 3 and 4, see "Entry Layout dialog box" in *Finale Reference.*

As a general rule, you'll probably have the best luck with Metatool 3. If the resulting spacing is much too wide—as sometimes happens with music of complex rhythms in different staves—try Metatool 4 instead.

PREPARING TO PRINT

You'll remember from Tutorial 1 that Finale offers a second view of your music, Page View, where the music is laid out as it will be when you print. Particularly if you plan to work with larger scores, you'll find it much quicker to do your editing in Scroll View. Reserve Page View for page layout, adding titles, final proofing before you print, and so on. Your computer can redraw the screen much faster in Scroll View.

- Choose Page View from the View menu. Finale shows you the full-page layout view of your song. Now reduce the screen display so that you can see the whole page of music at once.
- Choose Show Page from the View menu. You'll notice that DEFAULT.MUS not only provides you with a dummy title, but also that the first system has been pulled down from the top of the page to make room for it.

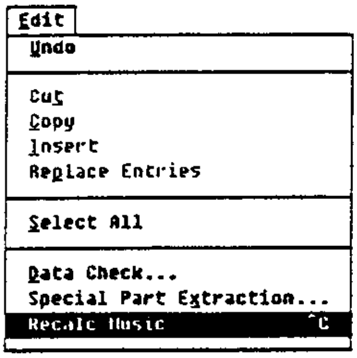
  You'll notice, though, that the measures aren't evenly spaced in Page View, even though they looked fine in Scroll View. Look at the bottom system, for example. Notice that the last two measures stretch across the entire last system.

RECALCULATING YOUR MUSIC

When you performed Metatool 3, you corrected the spacing of the *notes, lyrics, and accidentals* of your piece; however, Finale hasn't yet recalculated the effects of your respacing on the *layout of the measures.* As a matter of fact, this aspect of Finale's personality speeds up the program quite a bit, because Finale doesn't make you wait while the computer processes the new measure layout every time you change a measure's width. Finale only recalculates the measure layout when you ask it to.

Generally, you'll need to ask for such a recalculation as you're getting ready to print. Here, then, is the magic command:

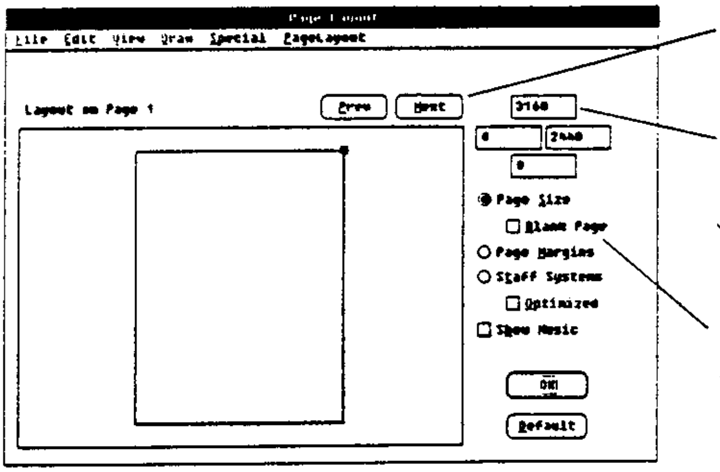
- Choose Recalc Music from the Edit menu. Because you will always need to recalculate your music before you print or after you make page layout changes, you may want to remember the keyboard equivalent for Recalc Music: CTRL-C. Once Finale has performed the recalculation, you should see that the measures are neatly respaced, essentially uniform, and justified so that they're flush with the margins of the page. (Finale may have to stretch the measures just a bit to make them flush with the margins. This accounts for differences in measure widths you might notice between Scroll View and Page View. Often a measure that looks a bit cluttered in Scroll View looks just right in Page View.)



You'll also notice that the music now fits on only four systems (lines of music). The lead sheet would look better if the systems were evenly spaced on the page instead of being tightly spaced in the middle of the page. Furthermore, you may decide to indent the first system. You can make these formatting changes using the Page Layout Tool ⊠.

THE PAGE LAYOUT TOOL

- Click the Page Layout Tool ⊠, then click anywhere on the music. The Page Layout window opens, displaying a mockup of the page you clicked. At first, you're looking at the outline of the entire page. If you wanted to make an adjustment to the page's size, you'd do so at this point.



Click Prev or Next to view the previous or following page, respectively.

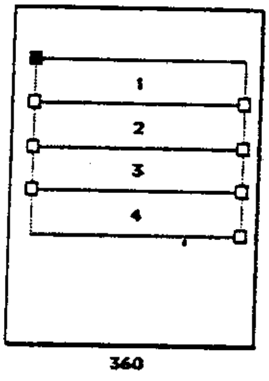
These four text boxes display the dimensions of the displayed page, margin, or system, in EVPUs (288 per inch).

Click Page Size, Page Margins, or Staff Systems to tell Finale which page layout element you want to adjust.

If you want to adjust the margins for a page, click the button that says Page Margins. Now you see a dotted line that represents this page's margins, ready for you to adjust.

Since you want to adjust the systems, use the button called Staff Systems.

- Click the Staff Systems button. Now you see dotted lines representing the systems of music as they fall on this page. Note that the systems are numbered to help you identify them. If you still don't know where you are, you can click Show Music, and Finale will draw a reduced view of the music. This will take a moment, and you can't make any page layout changes while the music is being displayed.

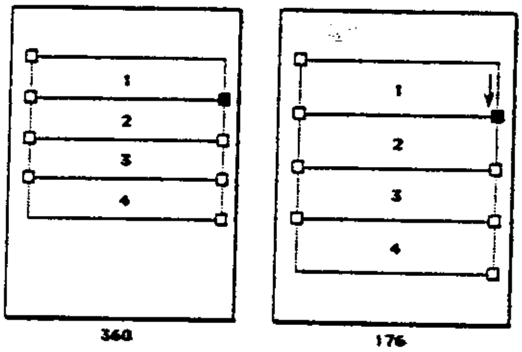


Note also the number below the page. This indicator tells you how much more room you need to fit the next system onto this page. When it comes time to work out page turns and overall layout, this counter can be very helpful.

The units of measurement displayed by this counter are called ENIGMA Virtual Page Units, or *EVPUs*. EVPUs, of which there are 288 per inch, are Finale's unit of very precise measurement. You'll encounter them in most of the Finale dialog boxes that pertain to distance measurement. They're called *virtual* page units because, unlike inches or centimeters, EVPUs are intelligent. They retain their size relative to the page regardless of how much you reduce or enlarge the music, growing or shrinking accordingly. Suppose, for example, you place an accent mark 100 EVPUs from the top of a quarter note. If you then reduce the page to 50% of full size, the accent mark still appears to be an appropriate distance from the notehead, even though the *actual* distance is smaller (the distance in inches or centimeters has changed).

Now you're ready to solve the spacing problem.

- Choose Global Adjustment from the Page Layout menu. The changes you make in the Page Layout window normally affect only the *individual* page or system you're adjusting. For example, under normal circumstances, if you drag the first system of the piece downward on the page to make room for a title, the following systems slide down accordingly. But when Global Adjustment is on, any change you make to *one* page, margin, or system affects *all* pages, margins, or systems in the piece. You turned Global Adjustment on now because you want to increase the distance between *every* system and the one above it.
- Drag the lower-right handle of the first system straight down about a quarter of an inch, as shown below. The handle is the small white square at the lower-right corner of the system. You're increasing the bottom *system margin*—the space between systems—for every system in the piece.



By dragging the lower-right handle of the first system, you increase the space below every system simultaneously (because you've turned on Global Adjustment).

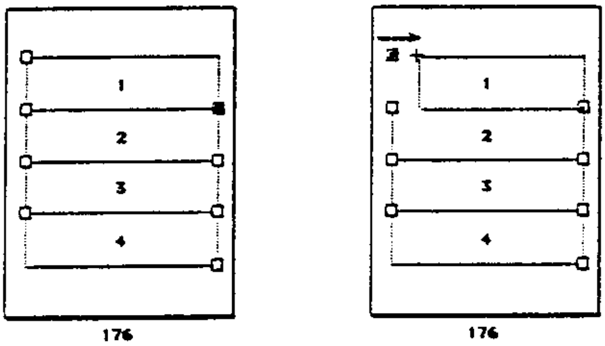
When you release the mouse, you can see that you've just allotted more space to every system. If the staves still don't make good use of the entire page, drag the first system's bottom handle up or down again.

Technical note: While you can, to an extent, adjust the distance between systems in Page View with this method, you're actually creating additional space between them, beyond their natural default separation. This default distance between systems is determined by the distance, in Scroll View, between the *top staff and the top of the screen*. (See "Systems" in the *Finale Encyclopedia* for a more detailed discussion and an illustration.)

This may be important if you're trying to fit systems closer together. If you use the Global Adjustment technique you've just learned, you may find that, beyond a certain point, you can't drag the systems any closer together. At that point you should return to Scroll View and drag the staves closer to the top of the screen.

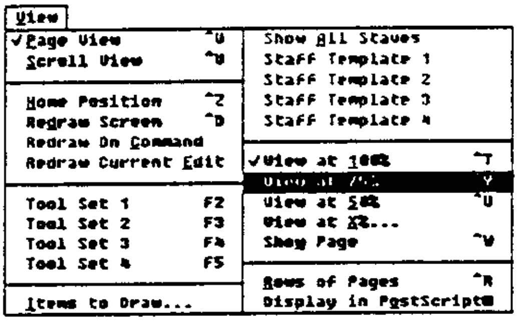
Next, you'll indent the first system. Since this change should affect only the first system, you'll turn global adjustment off.

- Choose Global Adjustment from the Page Layout menu again (to turn it off). Once again, you'll be editing only one page or system at a time.
- Drag the *upper* handle of the first system to the right about a half of an inch, as shown below. Notice that the numbers in the four text boxes (upper right of the screen) change as you drag any handle. These numbers, whose units are EVPUs (288 per inch), allow you great precision. Instead of dragging a handle, you can click the handle and type a number into one of these boxes. See "Page size," "Page margins," and "Systems" in the *Finale Encyclopedia* for complete instructions.



If you make a mistake or want to experiment, you can restore the page layout for the currently selected system, page margin, or page size to its original setting by clicking Default.

- Click OK. You're back in the Page View of your score. Sure enough, the first system is now indented, and the four systems are uniformly spaced on the page.
- Adjust the view so that you can see the entire width of the page. For most users this will mean choosing View at 75% from the View menu. If necessary, use the right scroll bar to further adjust the view.



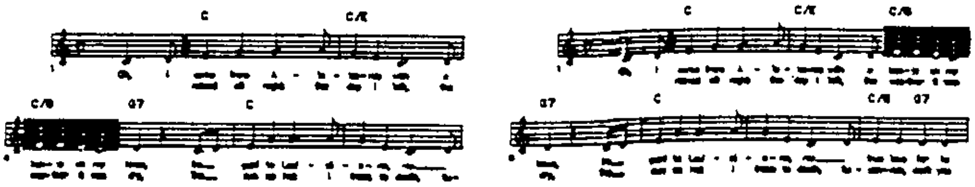
Take a look at the end of the first line of music. You'll notice a side effect of your work in the Page Layout window. When you indented the first system, Finale didn't recalculate the measure widths (remember, it never does until you choose Recalc Music from the Edit menu). As a result, the last measure on the line is too narrow, and the music in it looks crunched together.

- Choose Recalc Music from the Edit menu (or press CTRL-C). Finale adjusts the measure layout so that all the music is properly spaced.

A final tip on Recalc Music: Finale recalculates your music only *from the currently viewed page to the end* of your piece. This aspect of the Recalc Music command can save you time, since Finale won't bother reformatting pages you're already satisfied with. In Scroll View, Recalc Music recalculates the entire piece (even though you won't see the effects until you go to Page View). In Page View, if you want to recalculate the whole piece, be sure you're viewing the first page.

- Drag the scroll box in the vertical scroll bar all the way to the bottom. Look at the last line of music. When you recalculated the music, Finale responded by pushing the last measure in the *first* system onto the second line. This measure layout change rippled through the entire page until the last measures of the piece were pushed *off the page* (or, depending on the distance between your staves, onto a new system). Instead of settling for a two-page lead sheet, however, there's a quick page-layout technique you can use to pull the last measures back onto the first page.
- Drag the scroll box in the vertical scroll bar upward until you can see the first two lines of music. Your aim is to put measure 4 ("ban-jo on my") *back* onto the end of the first system.

  To do so, you'll use a special Finale feature called *measure grouping*.
- Click the Mass Mover Tool, and click measure 4. Measure 4 should be the first measure in the second system. You're about to tell Finale to push measure 4 up onto the first system.
- Press the up arrow key. When you select a measure and press the up or down arrow, Finale responds by pushing that measure onto the system above or below its current system, respectively (see the figure below).



To move a measure up to the previous system, click the Mass Mover Tool, then click the measure (left). Press the up arrow key. Finale moves the measure up and chooses Recalc Music automatically (right).

By pushing measure 4 back onto the first line of music, Finale adjusts all the measures on the page. If you scroll to the bottom of the page, you'll see that the last measures of the piece were indeed put back onto page 1. You now have a neat, well-spaced, one-page lead sheet.

You'll learn more about the Mass Mover Up/Down arrow technique in Tutorial 8.

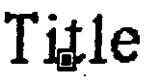
THE HEADER/FOOTER TOOL

A "header" is any single line of text on the upper part of a page. Titles, subtitles, composer credits, and dates are good examples of headers. A footer is precisely the same, but usually occurs on the lower half of the page for page numbers, copyright notices, and so on.

For best results, don't use the Header/Footer Tool for musical text like "Adagio" and rehearsal letters. Use the Staff Expression and Score Expression tools for these purposes (see Tutorial 6). For text more than one line long—such as a note to the conductor, or a block of alternate lyrics—use the Text Block Tool (see "Text blocks" in the *Finale Encyclopedia*).

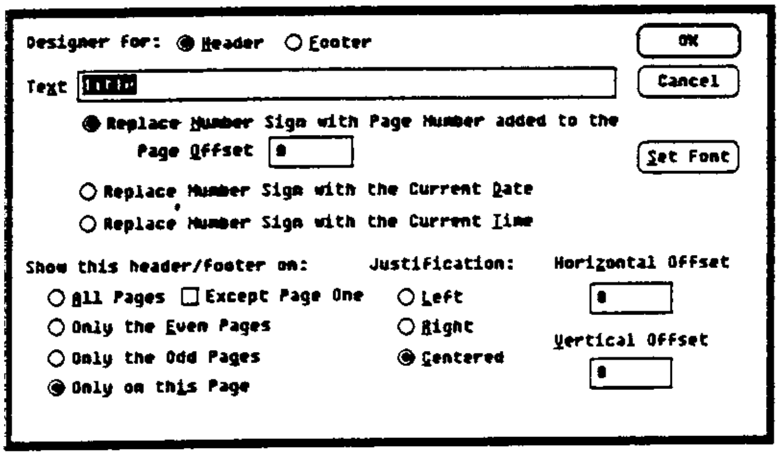
First you'll change the dummy title to "Oh, Susannah," then you'll add a subtitle.

- Drag the vertical scroll bar all the way to the top.
- Click the Header/Footer Tool. The dummy title sprouts a small square handle. (Remember that you can scroll the tool palette up or down by Shift-dragging it.)



Title

- Double-click the handle. The Header/Footer Designer dialog box appears. As you'd expect, Header, Centered, and Only On This Page have been selected for this dummy title.



Designer for: ● Header ○ Footer

Text: Title

● Replace Number Sign with Page Number added to the Page Offset: 0

○ Replace Number Sign with the Current Date

○ Replace Number Sign with the Current Time

Show this header/footer on:
○ All Pages ☐ Except Page One
○ Only the Even Pages
○ Only the Odd Pages
● Only on this Page

Justification:
○ Left
○ Right
● Centered

Horizontal Offset: 0

Vertical Offset: 0

- Type "Oh, Susannah". If you want to change the typeface, click the Set Font button. (The dummy title is in Times-Roman 24-point bold).
- Click OK. You're back in the score.

  Now add a subtitle beneath the main title.
- Double-click anywhere in the area of the title. The Header/Footer Designer dialog box appears. (It doesn't actually matter where you double-click, you'll fine-tune the subtitle's positioning by hand after you create it.)
- Type "American Folk Song."
- Click Centered and Only On This Page. Header is already selected.
- Set the font and size. Click Set Font to enter the Font Selection box. For a subtitle, a 12- or 14-point size should work well. Use the same font you used for the title. When you've selected the font and size, click OK.
- Click OK to return to the score. Adjust the position of the subtitle by dragging its handle. Finale centers the new header for you (between the *margins*, not necessarily on the page), but you might want to adjust its vertical position. (To delete a header or footer, click its handle and press Delete.)

Oh, Susannah
American Folk Song

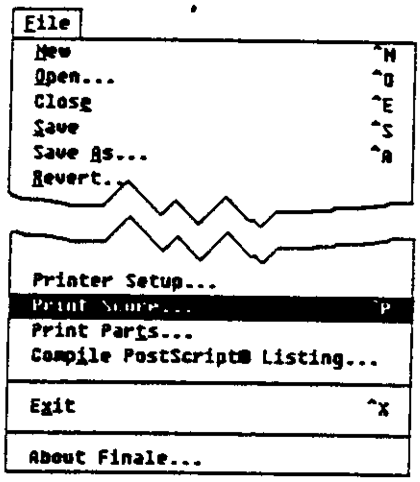
As a finishing touch, add a final barline to the piece.

- Drag the vertical scroll bar all the way to the bottom. Click the Measure Attributes Tool ▤, and double-click the top handle on the final barline. The Measure Attributes dialog box appears. To create the final barline, you'll actually specify two barlines—a thick bar and a thin one just beside it. At the top of this box, you'll find several barline options.
- Click Solid Bar and Light Line. Click OK (or press Enter). You return to the score, where the last measure now has a final barline.

  If you're satisfied with your work, save it by choosing Save from the File menu.
- Choose Recalc Music from the Edit menu (or press CTRL-C). It's a good habit to get into—always recalculate the music just before you print.

  At one point in your experimentation with the page layout of your piece, the last two measures were pushed onto a second page. Even though they were later restored to the first page, Finale still remembers that there's a second page to this file (even though it's blank). Therefore, another good habit to get into is to remove any extra blank pages from the end of the piece before you print it.

- Click the Page Add/Remove Tool. A dialog box appears, asking whether you're interested in adding *another* blank page to the end of your file or *removing* any existing blank pages.
- Click Delete. Now you're ready to print.
- Choose Print Score from the File menu, and click OK in the dialog box that appears. In a moment, your printer should begin to print your score. Read the next section for some hints on printing.



PRINTING BASICS

There are essentially three kinds of printers that work with Finale: dot-matrix printers, non-PostScript laser printers and PostScript devices, which are suitable for professional publishing. In all cases, be sure you've prepared Windows for printing from Finale as described in the *Finale Startup Guide* and your Windows User's Guide.

- **Dot-matrix Printer.** The quality of the printing you'll get from a dot-matrix printer—from any program—depends on the fonts installed on your computer. That's because dot-matrix printers reproduce images in the same way as your computer screen does. If you print a file that contains Times-Roman 12-point, the dot-matrix printer uses the corresponding font installed on your computer. If that font size is not installed on your computer, Finale does its best to scale another point size of the same font. Results may be experimental at best. To obtain the best print quality, make sure that your computer contains the fonts and sizes that you are printing with.

  As you work with Finale, you may find that the "standard" size for notes in the Petrucci font is larger than notes in many published scores. While Finale can quickly and easily reduce or enlarge the printed size of your scores, a dot-matrix printer may produce staves with unevenly spaced staff lines or notes with a crooked or jagged appearance. Because dot-matrix printer resolution is limited, distortion of this type is unavoidable.

  If you print out music with lots of beamed eighth notes, you may notice that slanted beams are jagged, with a "stair-stepped" appearance. This is also characteristic of dot-matrix printers. To improve the look, instruct Finale to print beams horizontally (and hence smoothly): choose Options from the Special menu and click Draw Only Flat Beams to select it.

- **Non-PostScript Laser Printer.** Consider non-PostScript laser printers the medium quality, medium cost alternative for printing. Compared with dot-matrix printers, their resolution is high, so the scaling of fonts and slanting of beams is better. But, since they do not respond to PostScript instructions, some degree of distortion on scaled fonts and curves (such as slurs and ties) is unavoidable.

- PostScript Device. Finale's output truly shines when you print on a PostScript device, such as Apple's LaserWriter printers, those made by GCC Technologies, NEC, Texas Instruments, and others. PostScript is a page-description language in which instructions on where to print and how to draw lines and curves are transmitted from computer to printer. This language does not instruct the printer to fill in a grid, the way that dot-matrix printers do, so print quality is less-dependent upon page size and printing size. If you installed Finale by following the instructions in the *Finale Startup Guide*, then the printer font (PETRU.PSF) is installed on your computer. Once it's there, you can print your music at any size—regardless of the point sizes installed on your computer—and it will always be smooth and crisp. Furthermore, unlike dot-matrix printers and non-PostScript laser printers, PostScript devices create perfectly smooth, tapered slurs and ties.

  At times you might want to *tile* your pages—that is, create large score pages by taping several standard-size pages together. (Most laser printers under $20,000 can't print on any paper larger than legal size.) See "Tiling pages" in the *Finale Encyclopedia* for instructions.

WHEN YOU'RE READY TO CONTINUE

You've learned some very important concepts in this tutorial. In fact, these techniques and principles constitute much of the editing work you'll need to do in Finale. Here's a quick review of what you've covered, and the order in which the steps took place:

- Use *Mass Mover Metatool 3* to space and align notes, avoid collisions of lyrics and accidentals, and set ideal measure widths. (If certain measures with complex rhythms still aren't spaced properly, try Mass Mover Metatool 4 only on those measures.)
- Especially after performing Mass Mover Metatool 3 or 4, it's important to choose *Recalc Music* from the Edit menu, so you can see what the final layout will be. You should get in the habit of recalculating the music fairly frequently—perhaps each time you go into Page View, and always just before printing—so that you never get unexpected results when you print.
- Use the *Page Layout Tool* to adjust the spacing of all systems on the page (by choosing Global Adjustment from the Page Layout menu). Turn Global Adjustment off, then indent the first system. If you need more room for a title, drag the first system downward by its upper-left handle. Choose Recalc Music from the Edit menu.
- Use the *Header/Footer Tool* to add titles, composer credits, copyright notices, and so on.
- Use the *Page Add/Remove Tool* to remove any blank extra pages at the end of the file.

Save your work once more. If you've had enough for this session, choose Exit from the File menu.

FOR MORE INFORMATION

Some of the entries in the *Finale Encyclopedia* contain mini-tutorials pertaining to topics you've just covered. See, for example:

Allotments
Measure layout
Page layout
PostScript
Printing
Spacing
Systems
Titles

REAL-TIME MIDI MUSIC ENTRY

So far, you've explored ways of entering music into Finale note-by-note. Simple Note Entry is useful for working without a MIDI keyboard, and Speedy Note Entry make good use of the synthesizer in conjunction with the computer keyboard to provide extra speed.

One of Finale's greatest powers, however, is its ability to transcribe a live performance in real time. You'll be using two tools: HyperScribe, which creates a notation of your performance almost as fast as you can play it, and the Transcription Tool, which provide a sequencer-like window in which you can save and later reopen your performances, "punch in" and "punch out," and provide even more transcription options than HyperScribe.

INTRODUCTION TO HYPERSCRIBE

Each time you play a note on your synthesizer, the computer receives certain information via the MIDI cable: which key you struck, how hard you hit it, and how long you held it down, in fractions of a second. But to convert your performance to standard notation, Finale needs to know how each note's duration relates to the beat and the measure.

In the past, music programs solved the "where-does-the-note-fall-relative-to-the-beat" question by producing a metronome click while you play. In other words, the computer provided a point of reference, forcing you to align your playing with its beat.

Finale introduces a novel concept: Let the *musician* provide the click. The computer gets what it needs to transcribe the music—a reference point for each beat—and the musician gets what he or she wants—the freedom to speed up or slow down while playing.

What's more, Finale doesn't even care what you're tapping to provide this tempo reference If you're playing a single-line melody, you might tap along on a very high or low key on your synthesizer. For two-handed performances, you'll probably opt to tap your foot on pedal. But any MIDI controller, from breath controller to modulation wheel, can provide the tap.

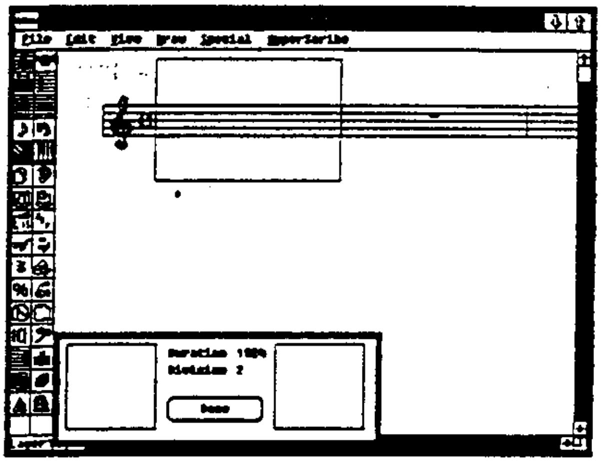
HyperScribe, as this transcription mode is called, can be extremely accurate. First, howev Finale needs you to answer some questions about what you're about to play: What's the rhythmic value of your tap? Quarter notes? Eighth notes? Will there be inner voices or triplets? In this tutorial we'll explore how these settings affect your transcription.

HyperScribe, by the way, isn't just for keyboard virtuosos. No matter how slowly you go, HyperScribe is still an excellent means of entering music—single-line or simple music in particular—into a score. If you're a copyist, for example, you still may come to prefer HyperScribe for quick, accurate note input.

In the next two sections, you'll give HyperScribe a try. For a more complete discussion of various settings and how you might use them, see "Real-time transcription (HyperScribe) the *Finale Encyclopedia,* or Appendix 3 ("Real-time Transcription Settings Guide") in *Finale Reference.*

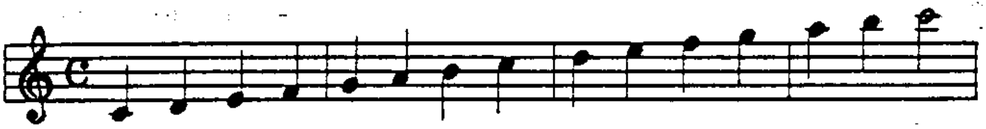
- Choose New from the File menu. There is no need to save changes to the current file.
- CTRL-click the Measure Add Tool. Type 15 and click OK.
- Click the HyperScribe Tool. A new menu appears on the menu bar called HyperScribe, from which you'll make your transcription settings.
- Choose MIDI Input from the HyperScribe menu. You have to tell Finale which key or pedal (or other MIDI controller) you'll be tapping to provide the tempo reference. The dialog box that appears has three text boxes displaying hexadecimal notation (compute codes). Fortunately, you can enter the requested information by simply *playing* the key o controller you want to designate as the tap source.

- Click Listen to MIDI. The Listen box now has an X in it.
- Play C below middle C. If your MIDI equipment is set up properly, the X disappears from the check box. Finale now knows that you'll be tapping the C below middle C to provide the beat. (You can, of course, use any key or MIDI controller at all.)
- Click OK, then click the first measure. A dotted frame surrounds the measure you clicked, and an odd-looking dialog box appears. This "buffer box" consists of two large squares. With each beat you tap, a black dot will appear in the left square, and with each note you play, a black dot will appear in the right square. This box is your alert system. If you're playing very fast, "notey" music, or if you're working on a computer with a relatively slow processor, it's possible for you to play your music too fast for HyperScribe to handle. Here's the telltale sign: if either box becomes completely filled with black dots, you're about to overload HyperScribe's buffers. At that point you should either slow down or simply wait, between taps, for HyperScribe to process the information. If you do overwhelm HyperScribe, it will skip a few measures and jump ahead to keep up with you.



Now that you know what's going to happen, give it a try. It doesn't matter whether you play staccato or legato (short or connected notes). HyperScribe expands any note you play to the beginning of the next note (or beat), so that you won't find scattered sixteenth rests cluttering your music when you're finished. Play as slowly as you like. You don't even have to play very evenly—the ability to vary your tempo, after all, is one of HyperScribe's main features—but your two hands should be synchronized.

- Play a two-octave C scale with your right hand, in quarter notes, starting on middle C, as shown below. With each note, tap the C below middle C with your left hand. Finale won't transcribe those left-hand Cs, because you've defined C below middle C to be your tapping note.

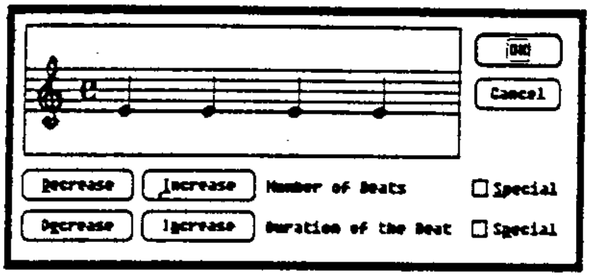


As you play each measure, it fills up with notehead-like dots. Only when you've completely filled a measure (and moved on to the next) does the full-fledged notation appear.

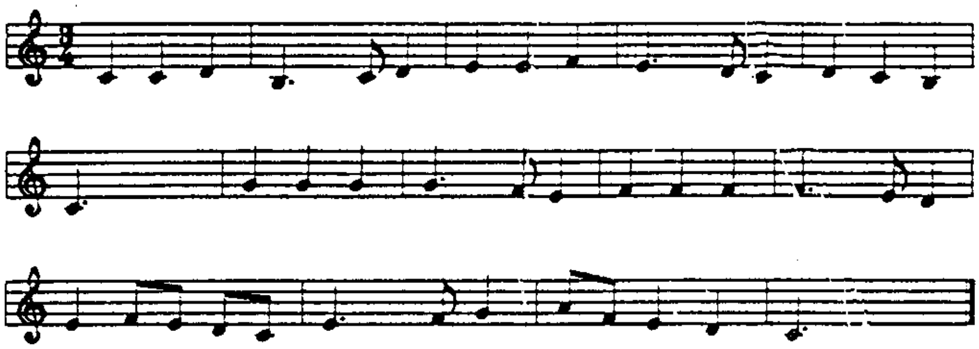
- When you're finished, click the Done button. The editing frame goes away. Scroll through the measures and take a look at what Finale did: it correctly transcribed all but the last measure of your C scale. That's because HyperScribe, as we've noted, doesn't transcribe a measure until it is completely full. In other words, to ensure that your entire performance is transcribed, you should always *play an extra measure* at the end of your performance—notes and taps—to "flush out" the last measure of music you *did* intend to transcribe.
- Scroll back to the first measure (or press CTRL-Z.)

TRANSCRIBING A MELODY

- Click the Time Signature Tool ▣. Then click the handle of the first measure. The time signature box appears.



- Click the upper Decrease button. You've just decreased the numerator, so the meter is now 3/4. Because each measure still has four quarter notes in it, things will look a little cluttered when you return to the score. It's nothing to worry about.
- Click OK. In the next box, click This Measure Through End of Piece. You'll try a slightl more ambitious HyperScribe experiment this time—"My Country, 'Tis of Thee."
- Click the HyperScribe Tool ▣, and click the first measure. You don't have to make any settings again in the HyperScribe menu. Finale remembers your settings from one pass tc the next. Nor do you need to erase your C scale. A new HyperScribe pass overwrites whatever was there before.
- Play "My Country, 'Tis of Thee" as shown here. Remember to tap steady quarter notes with your left hand on C below middle C. Don't forget to play one extra measure at the end of the piece to flush out the buffer.



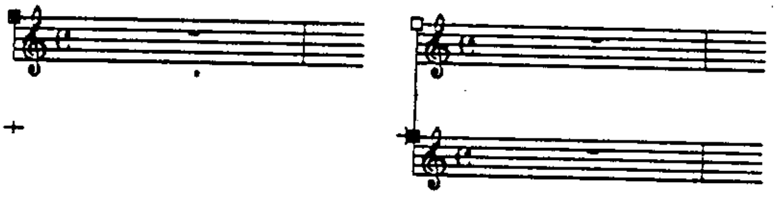
- When you're finished, click Done. Be sure that the buffers are almost empty before clicking Done, otherwise the last part of your music won't be transcribed. Scroll back to the first measure (or press CTRL-Z). Now, by clicking repeatedly in the gray area of the horizontal scroll bar to the right of the scroll box, scan your piece and see how you did. Feel free to try it again. Anything new you record will simply overwrite whatever music is there now.

  When you feel confident with playing a single-line melody, you might like to try the next experiment: playing with two hands while tapping with your foot.

BUILDING A GRAND STAFF (OPTIONAL SECTION)

If you want, you can skip this section, which shows you how to build a score, including adding staves and brackets. If you decide to skip ahead, open the tutorial file called TUT05.MUS and skip to the section called "Setting meter and beaming patterns."

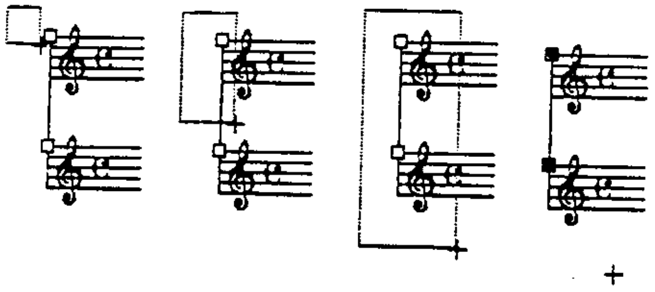
- Choose New from the File menu. There is no need to save changes to the last file.
- CTRL-click the Measure Add Tool, type 8 and click OK.
- Click the New Staff Tool. Position the cursor at the place where you'd like the second (lower) staff to begin, and double-click. That's how you add staves in Finale: click the New Staff Tool and double-click anywhere on the screen. (If you're inserting a staff between two existing staves, press Shift while you double-click. To make room, Finale will move the staves below the new one down.) You can move a staff by dragging its handle up or down, and you can remove it altogether by clicking its handle and pressing Delete.



Position the cursor where you want the new staff to appear (left). Double-click to create the new staff (right).

You'll notice, however, that at the moment, the barlines don't continue through from one staff to another. That's because these staves haven't been *grouped.*

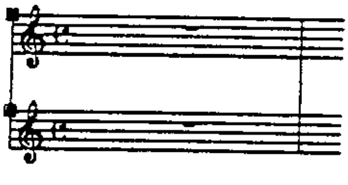
- Starting in the blank space above and to the left of the upper staff, drag the mouse, creating a dotted rectangle. Enclose both staves' handles in the rectangle, and release the mouse button. This is one way to select several staves at once: drag a rectangle around their handles. It is the same "drag-enclosing" technique you learned in Tutorial 1 for selecting several measures with the Mass Mover Tool.



To "drag-enclose" handles, drag the mouse from a point above and to the left of the first handle. Drag down and to the right, so that you create a dotted-line rectangle enclosing the desired handles. When you release the mouse (right), the handles that were enclosed are selected.

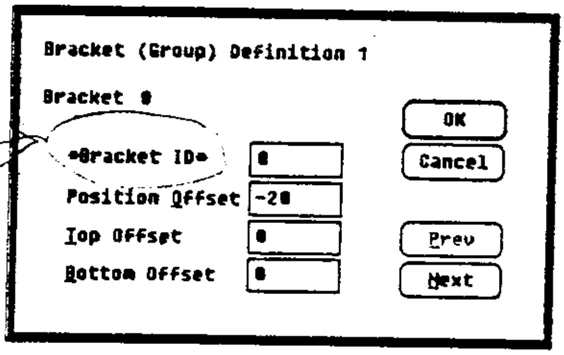
Both handles should now be highlighted.

- Double-click either handle. That's the secret. To group staves together, select their handles and double-click one of them. The barlines now join both staves.



Grouping staves together has one other important benefit: it allows the Bracket Tool to work. You may have to scroll the tool palette to access the Bracket Tool. Remember: Shift-drag to move the palette.

- Click the Bracket Tool ⌧. Click the first measure of either staff. The Bracket (Group) Definition dialog box appears.



Bracket (Group) Definition 1

Bracket 0

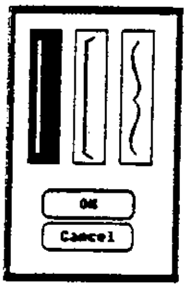
Bracket ID 0

Position Offset -20

Top Offset 0

Bottom Offset 0

- Click the words *Bracket ID*. This is a convention unique to Finale: whenever you see a button label with *asterisks* around it, Finale invites you to click on the words themselves. Another, more illustrative, dialog box appears.



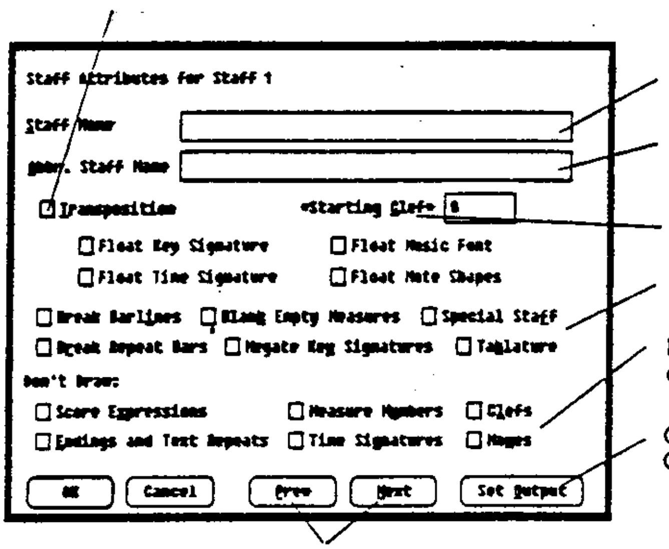
In this case, you see a picture palette of three bracket types.

- Double-click the rightmost bracket (the piano brace). Now you're back in the Bracket Assignment box. Note that Finale has filled in the *Bracket ID* text box with a 3. As you learn Finale, you may eventually find it easier to type the desired bracket number directly into this text box, instead of clicking *Bracket ID*. Either method is fine.
- Click OK. A curly piano brace now brackets your piano staff. You can move or resize it by dragging its small square handles. (You can also delete it by clicking a handle and pressing Delete.)

  Next you'll use the Staff Attributes Tool to change the clef of the bottom staff to the bass clef. If you scrolled the palette to see the Bracket Tool, you may need to scroll back up again.

- Click the Staff Attributes Tool ⌧, then click the lower staff's handle. The Staff Attributes dialog box appears. In this dialog box, you can give the staff a name, specify the transposition (if it's a trumpet or clarinet staff, for example), tell Finale not to draw certain elements for this staff—measure numbers, for example, and direct the playback of this staff to any MIDI channel (see Tutorial 7). By clicking the words Special Staff, you can even change the number of staff lines, from zero to 99.

Click if this is a transposing instrument



Starting Clef 0

Staff name (first system only)

Abbreviated staff name
(subsequent systems)

Click to specify the clef

Special staff characteristics

Musical elements you want
omitted from this staff

Click to set MIDI channels and
Output Routes

Click to set the Staff
Attributes for other staves

Your task for the moment is to put a bass clef in this second staff.

- Click the words *Starting Clef*. Once again, Finale displays a graphic palette, this time containing a selection of clefs.
- Double-click the bass clef (upper right). Now you're back in the Staff Attributes box. Note that Finale has filled in the *Starting Clef* text box with a 3. In Finale's default clef-numbering scheme the treble clef is always 0 and the bass clef is always 3.
- Click OK (or press Enter). You've just created a grand staff. It may help you to review the process:

(1) Add a staff (click the New Staff Tool and double-click the screen).

(2) Group the staves by selecting both handles and double-clicking one.

(3) Add a bracket by clicking the Bracket Tool and clicking the first measure.

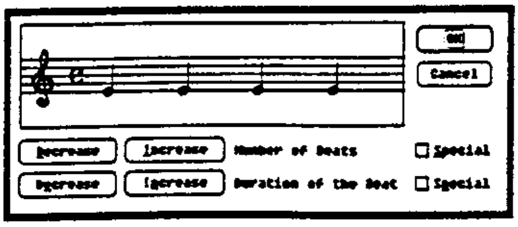
(4) Change the lower staff's clef by clicking the Staff Attributes Tool, then clicking the staff's handle.

If you're uncertain about what you've just done, or if you want to start afresh, you can close this file and open the file called "Tutorial 5—Grand Staff."

SETTING METER AND BEAMING PATTERNS

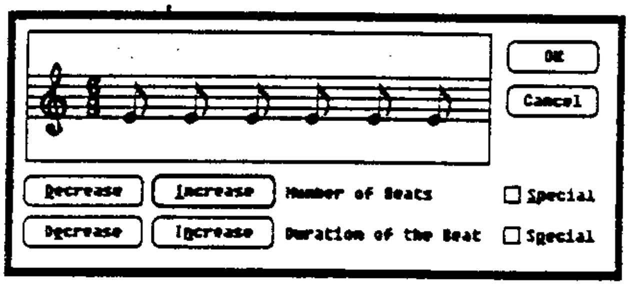
In the last experiment, you used Finale's default setting of quarter-note key taps. In the next experiment you'll be trying a piece in 6/8 time, which will require you to change some of HyperScribe's settings.

- Click the Time Signature Tool ▦. Each barline sprouts a handle.
- Click the first barline handle. The Time Signature dialog box appears.



- Click the upper Decrease button twice. This might surprise you. We're changing the meter to 6/8, so you'd expect a 6 in the numerator. Why are we *subtracting* beats from the numerator (so that it now is 2)? Read on.
- Click the lower Increase button once. When you increase the denominator to a dotted quarter-note value, the new meter suddenly makes sense: two dotted quarter notes do, fact, constitute a 6/8 meter.

  The Time Signature setting does more than set the meter. It also determines the beamin patterns for the music you're about to input. You could have increased the numerator 6, and decreased the denominator to eighth notes, like this:

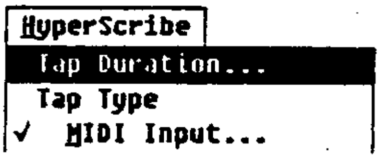


But then you'd wind up with *no* eighth notes automatically beamed together. By specif-ing a 6/8 formed by two dotted quarter notes (instead of six eighth notes), you've instructed Finale to beam the eighth notes together in dotted-quarter note groups—that is, in groups of three.

- Click OK, then click This Measure Through the End of the Piece.

TWO-HANDED HYPERSCRIBING

- Click the HyperScribe Tool ▣. The HyperScribe menu appears.
- Choose Tap Duration from the HyperScribe menu.



Since you're playing a 6/8 piece, you have to tell Finale that you'll be tapping your foot every dotted quarter note. That's the purpose of the Tap Duration dialog box that now appears.

- Click the (3)X/8 button. The (3)X/8 means you'll be tapping your foot every dotted quarter-note. (3)X/8 is Finale's shorthand for "any meter composed of multiples of 3/8. For example, you'd click the same button for a piece in 3/8, 9/8, or 12/8 meter.

  The four buttons here specify both the foot-tap value (Duration) and the quantization level (Division). Finale's sense of rhythm is much finer than ours. It perceives subdivisio of rhythm down to 1024ths of a quarter note. (These very small rhythmic increments a called ENIGMA Durational Units, or EDUs.) Because Finale's perception of time is so precise, the program must round off, or *quantize*, each note in your performance to the nearest eighth note, quarter note, or whatever rhythmic value you specify, in order to produce readable notation.

  Because the smallest rhythmic value in a 6/8 meter is often an eighth note, Finale automatically enters a 3 into the Division box when you click the (3)X/8 button—in other words, it's prepared to round off any note you play to *one-third* of your foot-tap value. One-third of a dotted-quarter note is an eighth note.

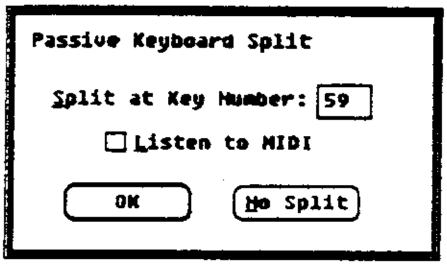
Here's a table showing some common meters and the Tap Duration button to click in each case:

Button	Sample meters	Tap value	Default Quantization
X/4	2/4, 3/4, 4/4	Quarter note	Eighth note
X/8	2/8, 3/8, 5/8	Eighth note	Sixteenth note
(3)X/4	3/4 waltz	Dotted half	Quarter note
(3)X/8	3/8, 6/8, 9/8, 12/8	Dotted quarter	Eighth note

When you click one of these "quick set-up" buttons, Finale fills in both the Tap Duration and Division boxes for you.

(Note: There are other ways to specify the Tap Duration and Division values for more complex meters. To choose an unusual foot-tap duration—a sixteenth note, for example—click the word "Duration". Finale displays a palette of note values, where you can click the sixteenth note and click OK. If you're conversant in EDUs, you may also enter the EDU value for the tap directly in the "Duration" text box. Finally, if your quantization level *varies* within the piece—for example, if you'll be transcribing an occasional triplet—you can turn on Floating Quantization. See the discussion of "Floating Quantization" later in this tutorial.)

- Click OK. You've told Finale the duration of your foot-tap, and you've specified a quantization value. Now you have to tell Finale which key, pedal, or other MIDI controller you'll be tapping.
- Choose MIDI Input from the HyperScribe menu, and click Listen to MIDI. You're about to tell Finale that you'll be tapping the sustain pedal.
- Tap the sustain pedal, just once. If your MIDI system is connected properly, the X disappears from the Listen to MIDI check box, and the codes in the three text boxes change.
- Click OK. One other parameter has changed since your first HyperScribe efforts: you're using two staves now. HyperScribe will split your performance into two staves (to be played by right and left hands), but it needs you to specify a *split point*—a key on the synthesizer, below which all notes will be routed onto the lower staff. The note you play and all higher notes will be transcribed onto the upper staff.
- Choose Split Point from the HyperScribe menu, and click Listen to MIDI. You can define a split point simply by playing the key.
- Play the B just below middle C. The X disappears from the check box.


Passive Keyboard Split

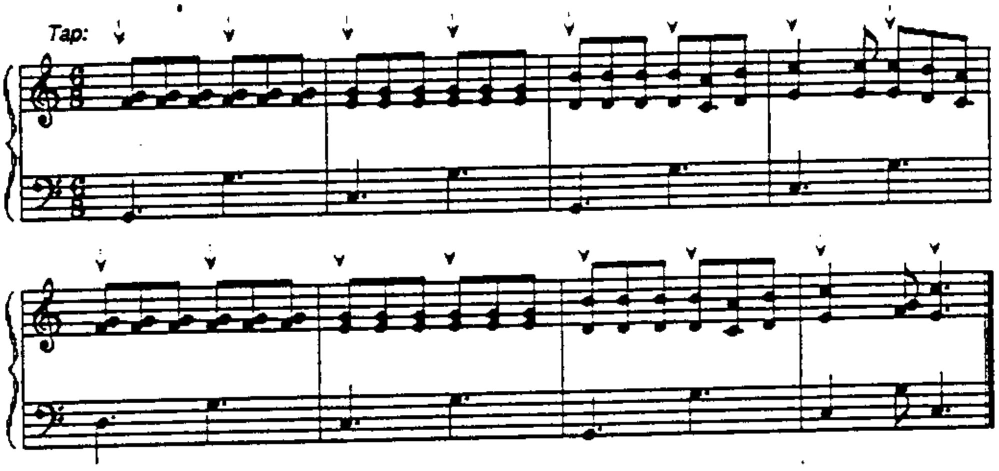
Split at Key Number: 59

☐ Listen to MIDI

- Click OK.
- Make sure No Voice Two is selected (displays a check mark in the HyperScribe menu). HyperScribe is perfectly capable of transcribing a second voice on each staff—an inner voice, in other words. When two voices are present, one will be notated stems-up and the other stems-down. But if the piece you intend to play doesn't have inner voices, let Finale know by selecting No Voice Two. (This item is already selected for you in DEFAULT.MUS.) Otherwise, you might get an inadvertent, stems-down, second voice every time you release a key a little bit late (thus overlapping the next note in your melody).

At last you've told Finale all it needs to know about the upcoming performance. You've told it that you'll be tapping on the pedal, that your taps represent dotted-quarter notes, that it should quantize your playing to the nearest eighth note, that it should split your music into two staves, and that each staff will have a single polyphonic voice (no inner voices). If you take this much care to set up HyperScribe every time you play, you should get fine results.

- **Click the first measure of the upper staff. Play a simple arrangement of "Chopsticks"—one possibility is shown below. Play as slowly as you like, but be sure you're giving the sustain pedal a little tap every beat (that is, every dotted quarter note), as indicated by the arrows below. When you're finished, don't forget to play an extra measure of music to "flush out" HyperScribe's buffer.**



- **When you're finished, click the Done button. Press CTRL-Z to return to the first measure.** If all went well, you should have a fairly clean, correctly beamed "Chopsticks" transcription. If the dotted-line rectangle never budged from the first measure, there's something wrong with your MIDI setup. Did a dot appear in the left-hand square in the buffer box window each time you tapped your foot? If not, your pedal isn't sending a signal. Check your connections and repeat the step above that begins "Choose MIDI Input from the HyperScribe menu."

  If you got *something*, but it doesn't look accurate, check the settings you made above. Also be sure your foot taps were synchronized with your hands.

Despite the rhythmic freedom HyperScribe provides, you may feel more comfortable playing along with a metronome click. If so, Finale is happy to oblige with its HyperClick feature, so you don't have to tap your foot at all. For instructions on setting up HyperClick, see "Metronome" in the *Finale Encyclopedia.*

Feel free to experiment with HyperScribe. You may, in particular, want to experiment with Float Quantizing, which allows you to play sixteenth notes or triplets (or other tuplets) and still obtain a clean, properly quantized score. Read the section on "Floating Quantization" later in this tutorial.

THE TRANSCRIPTION TOOL

Finale's Transcription Tool is similar to a sequencer, but not identical. Its primary function is to accept MIDI performances—generated either by you or by another computer—and convert them quickly into standard notation.

If you've just worked through the HyperScribe example, you already have a good idea of how the Transcription Tool works. There are just two major differences.

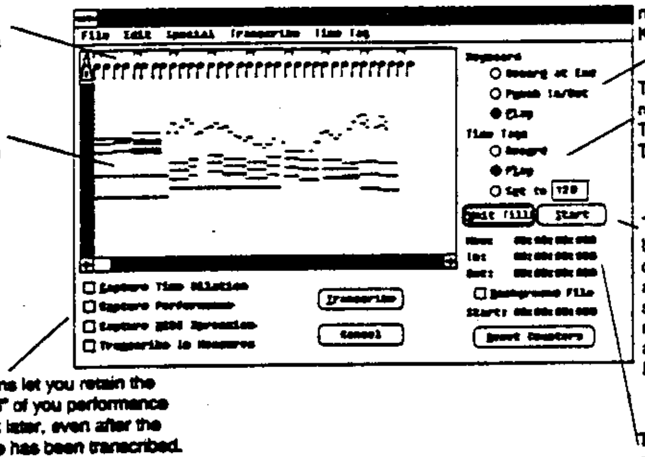
First, in the Transcription window, you can put in the pedal or key taps *after* you've created your performance. You don't need to tap anything at all while you're actually playing. The second important difference is that, the Transcription Tool *preserves* your performance in every detail. Once it has recorded your music, the Transcription Tool can play it back for you, save it on the disk, and—best of all—allow you repeated attempts at finding just the right transcription and quantization options, without ever losing your original performance.

Here's a quick example.

- Open the file named TUT05A.MUS. There is no need to save changes to the current file.
- Click the Transcription Tool .
- Click the first measure of the upper staff. Your click on the music is fairly important, because it determines where the transcription of your performance will begin. If the score already has music in it, the transcription will simply overwrite (replace) it.

  When you click the staff, you enter the Transcription window. This mini-environment has two menus of its own—Transcribe and Time Tag—which we'll get to in a moment.

THE TRANSCRIPTION WINDOW



Time Tag display area

Keyboard display area

These options let you retain the original "feel" of you performance for playback later, even after the performance has been transcribed.

These buttons govern the recording and playback of notes (displayed in the Keyboard display area).

These buttons govern the recording and playback of Time Tags (displayed in the Time Tag display area).

These buttons tell Finale to begin recording (or playing, depending on the Keyboard and Time Tag buttons you've selected). Click start to begin recording or playback immediately. Click Wait Till to put Finale in "pause" mode.

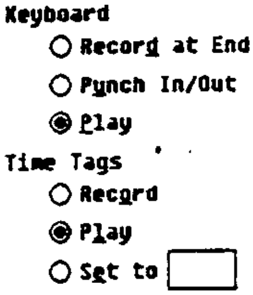
These real-time counters are used for "punching in."

Recording in the Transcription window is simple:

- Click the Wait Till button. The Wait Till button places Finale in "pause" mode. Finale will begin recording the instant you start to play.
- Play a few seconds' worth of music. Click anywhere (except on a button) to stop. As you play, you'll notice the numbers (minutes, seconds, thousandths of a second) after the Now indicator increase as time goes by.

  When you click to stop recording, you'll see a collection of thin horizontal lines on the screen, each representing a note you played. If you look closely, you'll see that each line actually lines up with one of the keys on the piano keyboard at the left side of the screen.
- Choose Select All from the Edit menu. Finale responds by highlighting all the recorded music. Get into the habit of choosing Select All before you record or play back an entire performance.

- Below the word Keyboard, click Play. In the Transcription window, you can operate on two distinct layers of information: the Keyboard layer—the notes you played—and the Time Tags layer, which you haven't yet entered. For the moment, just notice that there are separate Play and Record buttons for each.



Keyboard
○ Record at End
○ Punch In/Out
● Play
Time Tags
○ Record
● Play
○ Set to ☐

- Click the Start button. Click anywhere (except on a button) to stop the playback. You should hear your performance played back exactly as you recorded it.

OPENING AND CLOSING TRANSCRIPTION (NOTE) FILES

One important aspect of the Transcription window is that the File menu commands—New Open, and Save As—now apply only to the performances you record in the Transcription tool, not to the notation file in the "main" score window. If you're in the Transcription window and you choose Save As from the File menu, you aren't saving the standard Finale (notation) file you were working on, you're saving your Transcription note file.

The fact that MIDI performances can be opened and closed independently of the currently open Finale file can be a blessing. If inspiration strikes in the middle of the night, for example, you can leap into the Transcription window, play madly for a few minutes, save your performance on disk, and go back to bed—confident that Finale will faithfully recreate your masterpiece tomorrow, or whenever you have the time to transcribe it.

If you want to save your experimental performance, choose Save As from the File menu and give it a title. Whether or not you saved it, you can now proceed:

- Choose Open from the File menu. Instead of a list of Finale files, the dialog box that appears only displays any *Note Files* (the MIDI performance files created with the Transcription Tool). Locate your TUTFILES directory.
- Double-click LEESIMPR.NOT. Make sure the Play button (under the word Keyboard) is selected. Go ahead and listen to this Note File:

STA NELLA
DIR
TUTFILES

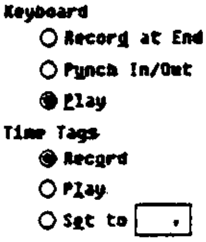
- Choose Select All from the Edit menu, then click the Start button. You should hear a brief jazz performance by pianist Lee Musiker. To hear it again, click Start again. Now you'll transcribe this performance. As you'll recall, the Transcription Tool allows you to tell Finale where the beats fall *after* you've recorded the performance. Follow the next steps carefully.

RECORDING AND ALIGNING TIME TAGS

- Under the word Keyboard, make sure the Play option is selected. You'll recall that the Transcription window contains two distinct layers of MIDI information: the Keyboard layer, which records every aspect of your performance, and the Time Tag layer, which records only your beat taps.

To tell Finale to play back your performance while you tap along, the Keyboard layer must be set to Play (as you've just done), and the Time Tag layer to Record.

- Under the words Time Tags, click Record.

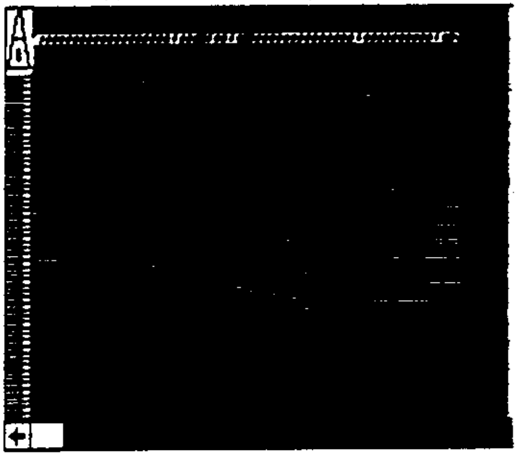


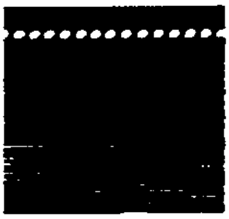
Keyboard
○ Record at End
○ Punch In/Out
● Play
Time Tags
● Record
○ Play
○ Set to

- Choose Select All from the Edit menu, then click Wait Till. Finale is now in "pause" mode, where it will remain until you provide the first tap by touching a key or pedal. At that moment the music will begin to play, and Finale will record your rhythmic key taps. As you tap, remember that the quarter notes are fairly brisk in this up-tempo excerpt. Tap as steadily as you can.
- Tap any key in time to the music. If you have trouble finding the beat the first time, or if you get off somehow, click anywhere (except on a button) to stop recording. To start over, choose Select All (Edit menu), choose Keyboard: Play and Time Tag: Record, click the Wait Till button, and try again.

To make it easy for you, we've provided music with a clear, steady beat. But keep in mind that one of Finale's greatest strengths is its ability to handle variations in tempo. As long as you can match it with your taps, you can record music that changes tempo as freely as you like.

When the music ends, Finale automatically stops recording, and you should see small quarter note symbols across the top of the screen. (Finale initially "listens" for Time Tags on MIDI channel 1. If no Time Tags appeared at all, change the settings on your synthesizer so that it's transmitting your taps on channel 1. To tell Finale to listen to some other channel, see "Click Input dialog box" in *Finale Reference*.)





Because the tempo of this song is so fast, the quarter note Time Tags at the top of the screen appear to overlap (left). You can "zoom in," however, by choosing Set View Resolution... from the Transcribe menu and entering 20. The Time Tags are now much more distinct (above).

This top strip of the screen is where you can see and edit your taps, which are called Time Tags. If you check the Time Tag menu, you'll see that Finale knew that your taps were quarter notes, because the "First Tag is" menu item was left at its default setting (quarter notes). If you tapped carefully, the stems of the quarter note symbols should line up vertically with the beginnings of notes (the thin horizontal lines in the keyboard region).

Whether they do or not, though, it helps to use Finale's automatic cleanup feature:

- Choose Align Tags To Notes from the Time Tag menu. Align Tags To Notes simply fine-tunes your taps by aligning them perfectly to the nearest note beginnings. The "search width" number in the dialog box that appears determines how accurately Finale will search for the start of a note with which to align each Time Tag.
- Click OK (or press Enter). Now Finale knows where the beats fall relative to the music, but it needs to know where the barlines fall. If you ever need to transcribe a piece whose meter changes every so often, you could repeat the Time Tag tapping process—but first choose Measure from the Time Tag menu, so that Finale knows that each tap is supposed to be a barline. When you're done, choose Convert to Time Sigs from the Time Tag menu. This useful command automatically creates time signature changes in the correct measures in the score.

  If you've already put the time signatures into your score—or if the piece is all in one meter—there's no need to record Measure tags in a second pass. Finale can put in the barlines for you. This piece is all in 4/4 time, so:
- Choose Assign Measure Tags from the Time Tag menu. Finale automatically puts a tiny M (for "measure") above the first quarter note and every fourth quarter note thereafter. Each M represents a barline.

THE TRANSCRIBE MENU OPTIONS

Before you turn this keyboard performance into notation, you need to make some settings from the Transcribe menu. These settings are similar to settings you made in the HyperScribe tutorial.

- Choose By Split Point from the Transcribe menu. The standard Passive Split Point dialog box appears.
- Click Listen to MIDI and play A♭ above middle C. The number in the text box should change to 68 (the MIDI key number that corresponds to A♭ above middle C).
- Click OK (or press Enter). In this particular performance, there was a discernible split point between the two hands at all times. The Transcribe menu also offers an important alternative to the split point option, called the *hand width split* feature.

  If you choose this option, Finale will split a two-handed performance onto the correct treble-clef and bass-clef staves by *tracking the positions of your hands* as they move up and down the keyboard—in other words, you don't have to specify a fixed split point. As long as there's a discernible distance between your two hands at any given moment, Finale will do an excellent job of solving the split point problem automatically. For more information, see "Real-time recording (Transcription Tool)—To transcribe a performance" in the *Finale Encyclopedia*.

FLOATING QUANTIZATION

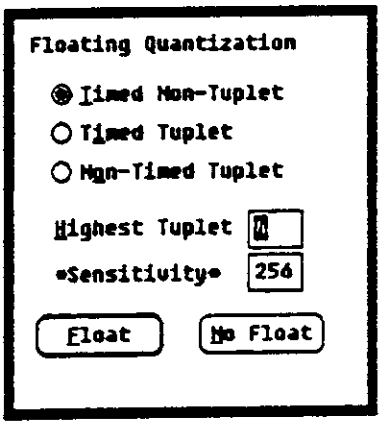
Now you need to specify the quantization level, just as you did in the HyperScribe example. In this jazzy piece, most of the notes are eighth notes. You might think you'd specify an eighth-note quantization level, then, by choosing Eighth from the Transcribe menu.

But wait—this piece had *swing* eighth notes! If you've ever worked with transcription software before, you'll realize what a headache swing can be, especially if the music includes triplets. Here's the problem. If you quantize to eighth notes, the triplets won't transcribe correctly (they'll be clumped together with the nearest eighths). On the other hand, if you quantize to triplet-eighth notes, your regular eighth notes will be all askew.

Fortunately, Finale solves the problem with a feature called Floating Quantization. If you turn this option on, Finale will quantize, whenever necessary, to the nearest sixteenth note (or whatever value you've specified in the Floating Quantization dialog box). But if it ever senses fewer than four notes (for example) between your Time Tag taps, it immediately realizes that—for this beat only—it can use a coarser quantization value, such as quarter notes.

This means, first of all, that transcribing a swing eighth note piece like this one will be a breeze—even if it has the occasional triplet. It also means that if you have a few sixteenth notes in a predominantly eighth-note-rhythm piece—a march, for example—Finale will have no problem. It will transcribe sixteenth notes, eighth notes, and quarter notes cleanly.

- Choose Floating (under Quantize Level) from the Transcribe menu. The dialog box that now appears offers three strange-looking options: Timed Non-Tuplet, Timed Tuplet, and Non-Timed Tuplet.

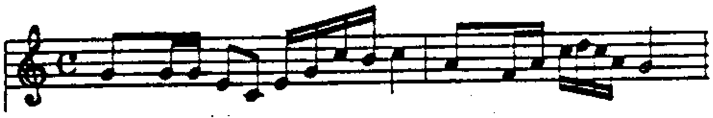


Floating Quantization

● Timed Non-Tuplet
○ Timed Tuplet
○ Non-Timed Tuplet

Highest Tuplet: 4
•Sensitivity•: 256

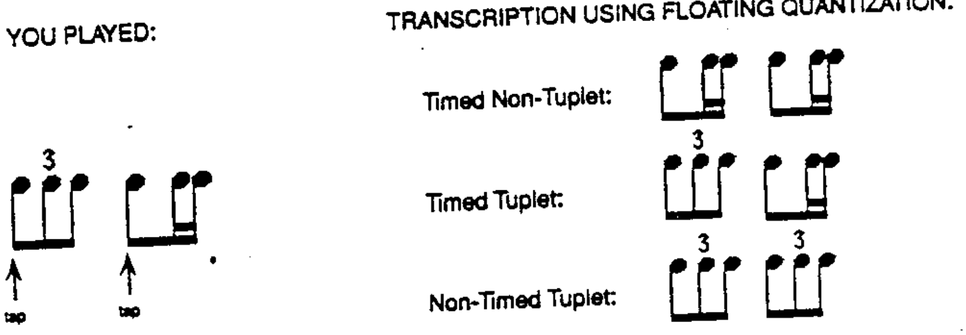
The first option, *Timed Non-Tuplet,* would be useful in the march example, because it tells Finale that there will be no triplets (or any other tuplets) in your transcription. You're telling Finale to assume that all small rhythmic values are sixteenths, 32nds, and so on—but never tuplets. Timed Non-Tuplet would be a good Floating Quantization for any piece with rhythmic values like these:



The bottom choice, *Non-Timed Tuplet,* is just the opposite. It assumes that any small values are part of triplets (or other tuplets). "Non-timed" means that Finale doesn't care how accurately the triplet was played—only *how many* notes were played between your taps. These characteristics make Non-Timed Tuplet a good setting for swing tunes, because triplets are perfectly transcribed, and all the swung eighth notes (for which there are *two* notes per beat) are transcribed as normal eighth notes. All you have left to do is to insert the word "Swing" as a tempo indication, if you like. (This setting will also correctly transcribe sixteenth notes, as long as the complete set of *all four* sixteenth notes were struck during the beat. If you played only two sixteenths and one eighth note, the three notes will be transcribed as a triplet.)

The middle setting, *Timed Tuplet,* is a cross between the other two. Whereas the first option assumes *no* triplets, and the third option assumes *only* triplets, the Timed Tuplet option actually tries to distinguish between these two rhythms, based on the timing of the notes within the beat. Needless to say, the Timed Tuplet setting requires you to play accurately enough that the computer can make such distinctions.

Here's a summary of the effects of each of the three Floating Quantization settings.



The first Floating Quantization option, Timed Non-Tuplet, never notates a tuplet, and always assumes that smaller rhythmic values were even subdivisions of the beat. The third option, Non-Timed Tuplet, assumes that any subdivision of the beat was a form of tuplet. Only the middle option, Timed Tuplet, attempts to distinguish between tuplets and even subdivisions of the beat.

For details on the remaining elements of the Floating Quantization dialog box, see "Floating Quantization dialog box" in *Finale Reference*. For now, proceed with your transcription:

- Click Non-Timed Tuplet, and click Float.
- Make sure that Expand Minimums is selected (displays a check mark in the Transcribe menu). You can think of Expand Minimums as a grace note killer—it *lengthens* any notes you played whose durations were less than the quantization value until they reach the beginning of the next beat.* If you don't select Expand Minimums, every note you played shorter than the quantize value will be transcribed as a grace note.
- Click Capture Performance and Capture Time Dilation. When the Capture Time Dilation dialog box appears, click Absolute. These options (in the lower-left corner of the Transcription window) tell Finale to remember the precise feel of your original performance, and to keep this data handy for playback once you return to the score. ("Performance" information is essentially key velocity data. "MIDI Xpressions" are controller data [pedaling, pitch bends, and so on], and "Time Dilation" refers to your tempo fluctuations, including ritards and accelerandi.)

  If you don't choose these options, when you play back the transcribed music from the score, Finale will simply play the *sheet music*—the notated version, which will be expressionless and "square"—instead of an exact re-creation of your original performance. On the other hand, enabling these options means that you can later *look at* the notated version of the performance, while *hearing* the original performance playing back.

  Note: The notion that Finale can play *either* the quantized, notated version or the actual original performance, at any time, is a very important one. Make sure you understand it before tackling Tutorial 7.

- Choose Select All from the Edit menu. That's it! You've given Finale all the information it needs to transcribe your performance.
- Click the Transcribe button. Finale goes to work, transcribing one measure at a time into standard notation.

  Even if the results aren't perfect the first time, you're not out of luck. Your original performance is still intact—in the Transcription window. If, for example, you see a lot of notes on the wrong staves, it's probably because your Split Point information was faulty. Just click the first measure of the transcribed notation to bring up the Transcription window, correct the Split Point setting and click Transcribe again. All your other settings are preserved, meaning that you can flip back and forth between the score and the Transcription window as many times as you want, experimenting with quantization or split point settings until you get the cleanest, clearest possible transcription.

---

* If you're using floating quantization, these notes are lengthened until they reach the beginning of the next beat. If you're not using floating quantization, these notes are only lengthened until they match the quantization value you've selected in the Transcribe menu.

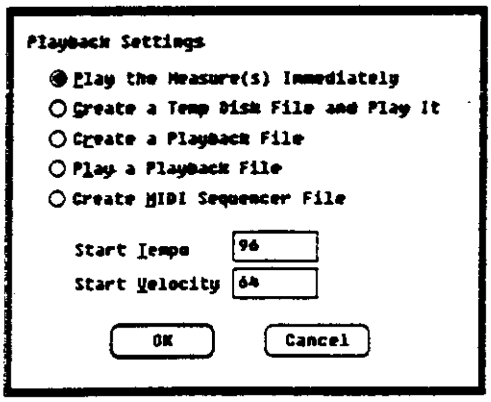
If you didn't get good results and you can't figure out what went wrong, read the section called "Real-Time Transcription Settings Guide" in Appendix 3 of *Finale Reference*.

CAPTURED-PERFORMANCE PLAYBACK

Now that you've transcribed Lee's Improv, you can listen to Finale play back the transcribed score. Instead of playing back the notated version, play back the re-creation of your original performance. This way, you'll be able to hear the *captured MIDI data* (performance data, controller data, and Time Dilation information) generated in the performance

- Click the Playback Tool. Choose Playback Options from the Playback menu. The Playback Options dialog box appears.
- Click Use Captured Performance. A dialog box appears, asking whether you want Finale to play back using the captured key velocities and duration alterations or just the captured key velocities. In this dialog box, "duration alterations" refers to the tiny rhythmic fluctuations in your performance within each beat (otherwise known as *Start and Stop Time data*).
- Leave the first option selected and click OK (or press Enter).
- Click Auto Start Time Dilation. You've just told Finale to use any tempo-change information it captured while in the Transcription window.
- Click OK (or press Enter). When you play back the score, Finale will play the notated score using the captured MIDI data from the original performance, so that the "feel" is preserved.
- Click the first measure and then click Start. The music plays back with the original feel.

  To play a score—a large score in particular—is a demanding task for a computer. To play back a score with MIDI expressions, controllers, and tempo variations is even more demanding. Therefore, the Playback Tool can help the computer a bit by preparing the performance in advance (in a precomputed file called a Playback File). Then, when you play the piece back, the computer has to compute only the playing back of that file.
- Choose Playback Settings from the Playback menu. A dialog box appears.



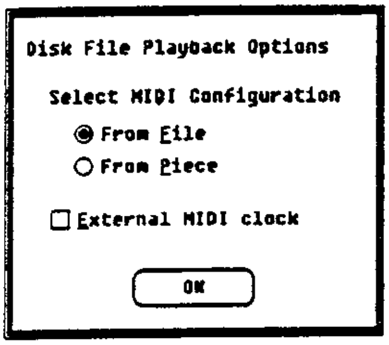
Playback Settings

● Play the Measure(s) Immediately
○ Create a Temp Disk File and Play It
○ Create a Playback File
○ Play a Playback File
○ Create MIDI Sequencer File

Start Tempo 96
Start Velocity 64

If you were to click Create a Playback File, you could create a permanent Playback File and save it on your disk for later retrieval. (Note, though, that a Playback File is not the same thing as a Note File created by the Transcription Tool.) For the purposes of this tutorial, you can simply create a temporary Playback File, which vanishes when you're done with this playback.

- Click Create a Temp Disk File and Play It, drag through the number 96 in the Start Tempo text box and type 168 (the original tempo of the performance), and click OK. The dialog box goes away, and the program waits for you to indicate the measure at which you'd like the playback file to begin.
- Click the first measure. The program displays a status box, keeping you apprised of its progress in creating the Playback File. When it's finished, another dialog box appears:



Disk File Playback Options

Select MIDI Configuration

● From File

○ From Piece

☐ External MIDI clock

OK

- Click OK (or press Enter). If all goes well, you should hear an exact re-creation of the original Lee's Improv—complete with dynamics, swing, and tempo fluctuations.

RECORDING YC R OWN MUSIC

For the purposes of this tutorial, you transcribed an existing Note File. But recording and transcribing you own music works exactly the same way. Simply close the existing Finale file and choose ew from the File menu—or, if you want to transcribe a two-handed performance, o n the file named TUT05B.MUS.

- Click the Tra cription Tool , and click the first measure of the staff. You enter the Transcriptio window.
- To erase an itover music, choose New from the File menu. The Transcription window is now emp
- Click Wait . Record at End, under the word Keyboard, is already selected.
- Play some ic. Click anywhere (except on a button) to stop recording. That's all there is to it. To nscribe what you've recorded, simply follow the steps above, beginning with "Rec ng and Aligning Time Tags."

WHEN YOU READY TO CONTINUE

Save your fi you want.

FOR MOR NFORMATION

Some of th tries in the *Finale Encyclopedia* contain mini-tutorials pertaining to topics you've just ered. See, for example:

Beaming
Brackets (s)
Clefs
Playback
Real-time recording (Transcription Tool)
Real-time transcription (HyperScribe)
Time signatures
Staves

TUTORIAL 6:
WORKING WITH SCORES

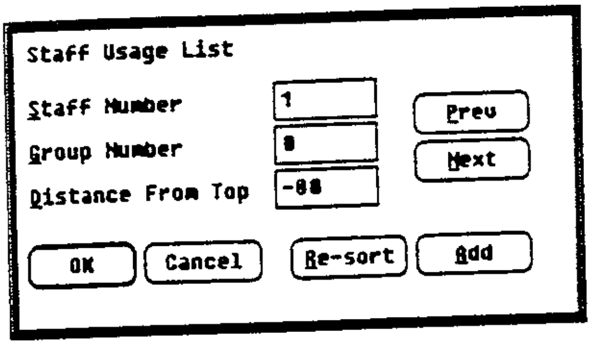
Now that you know the basics of entering music quickly and editing it efficiently, it's time to learn about Finale's more powerful score-oriented features. If you plan to work mainly on lead sheets, you may just want to skim this section. But if you intend to create multistaff scores—particularly orchestral scores—this more advanced tutorial is right up your alley.

- Open the file named TUT06.MUS. (There is no need to save changes to the current file.) TUT06.MUS consists of a single staff, filled with music.

ADDING SEVERAL STAVES AT ONCE

In the last tutorial, you learned how to add staves one at a time, by double-clicking anywhere on the screen with the New Staff Tool. If you're going to be creating more complete scores, you'll want to add many staves at once—preferably with uniform spacing.

- Click the New Staff Tool ▣.
- CTRL-click the staff handle. A dialog box comes up:



Staff Usage List

Staff Number: 1

Group Number: 0

Distance From Top: -88

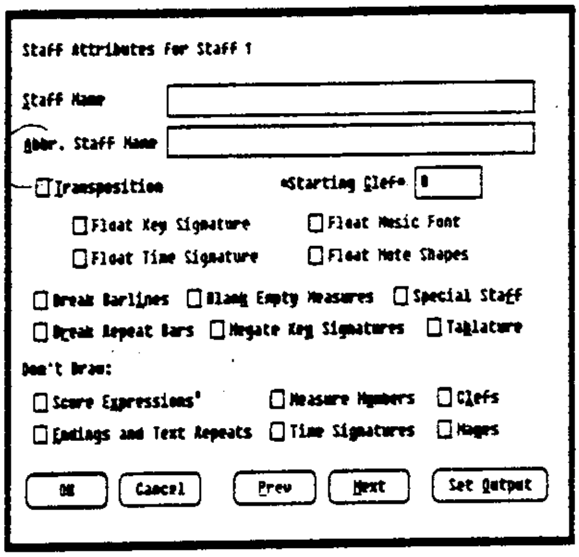
- Click Add. A box appears, asking how many staves you'd like to add, and how much distance, in EVPUs (288 per inch), you want between them. The negative number in this box is the distance from the top of one staff to the top of the next. Here, as almost everywhere in Finale, a positive number measures upward, a negative number measures downward.
- Type 3 and click OK. Finale adds three evenly spaced staves, giving you a total of four. Let's imagine that you're going to create a string quartet.

  Remember: you can reposition a staff by dragging its handle up or down and you can remove a staff by clicking its handle and pressing Delete.

SETTING CLEFS AND STAFF NAMES

To set the staff names and starting clefs—and other staff-specific parameters—use the Staff Attributes Tool.

- Click the Staff Attributes Tool ▤. All the staves sprout handles.
- Click the top staff's handle. The Staff Attributes dialog box appears.


Staff Attributes for Staff 1

Staff Name

Abbr. Staff Name

☐ Transposition *Starting Clef* 0

☐ Float Key Signature ☐ Float Music Font

☐ Float Time Signature ☐ Float Note Shapes

☐ Break Barlines ☐ Blank Empty Measures ☐ Special Staff

☐ Break Repeat Bars ☐ Negate Key Signatures ☐ Tablature

Don't Draw:

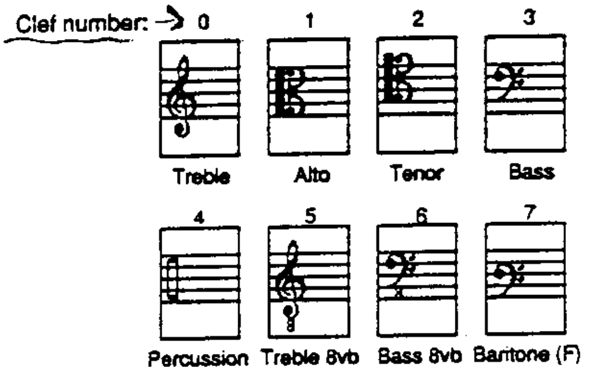
☐ Score Expressions* ☐ Measure Numbers ☐ Clefs

☐ Endings and Text Repeats ☐ Time Signatures ☐ Mages

Nome va a capo (come [illegible] Amis.)

- In the Staff Name box, type Violin I. Tab to the Abbreviated Staff Name box and type Vln. I. The full name of the instrument will appear next to the staff in the first system (line) of the piece. The abbreviated name will appear next to subsequent systems.

  The clef for the first violin is clef 0, or the treble clef. Since that's the default, you don't have to change it.
- Click OK (or press Enter). You're returned to the score, and you can see that Finale has written the instrument name next to the staff.
- Click the second staff's handle. Name it Violin II, and enter Vln. II as its abbreviated name. Instead of clicking OK to exit this dialog box, you can move directly to the attributes box for the next staff without having to go back to the score:
- Click the Next button. You're now looking at the attributes for the third, or viola, staff.
- Type Viola as the staff name, and Vla. as the abbreviation. Click the words *Starting Clef*, and double-click the alto clef (the second clef in the top row). Here, as elsewhere in Finale, you can click words with *asterisks* to get a graphic display of whatever elements they refer to.



The clefs in Finale are identified by number (0 through 7).

- Click the Next button. Type the full name, Cello, and the abbreviation, Vc., and select the bass clef. If you want, you can just type a 3 into the *Starting Clef* text box—the bass clef is always clef 3 in Finale's default scheme of clef numbering.
- Click OK. If you want to adjust the font style or positioning of the staff names, choose Font Selection from the Special menu. Click the Name button to set the font, and click

X Offset to set the positioning of the staff name. You'll see a mini-dialog box that lets you drag a letter X, representing the first letter of the staff name, wherever you want relative to the staff itself.

Making an intelligent copy (Mirroring)

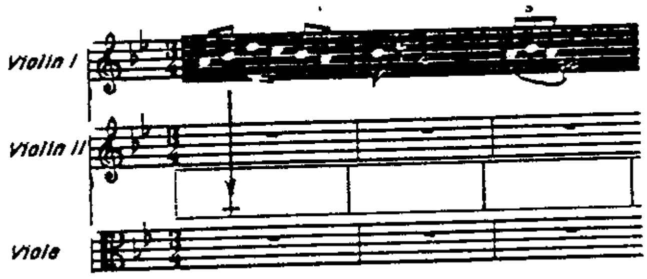
Let's suppose that, in this movement of the string quartet, the first violin and the viola are playing the same melody an octave apart. In Tutorial 1 you learned how to use the Mass Mover Tool to copy music from one place to another by dragging.

The Mass Mover has another powerful option called mirroring. Creating a mirror works in exactly the same way as making a copy—you still drag selected measures so that they're superimposed on the target measures. In mirroring, however, the resultant copy is *dynamically linked* to its source measures. If you change a note, accidental, or articulation in the original occurrence of this music, all of its mirrors will automatically change, no matter where they occur in your score.

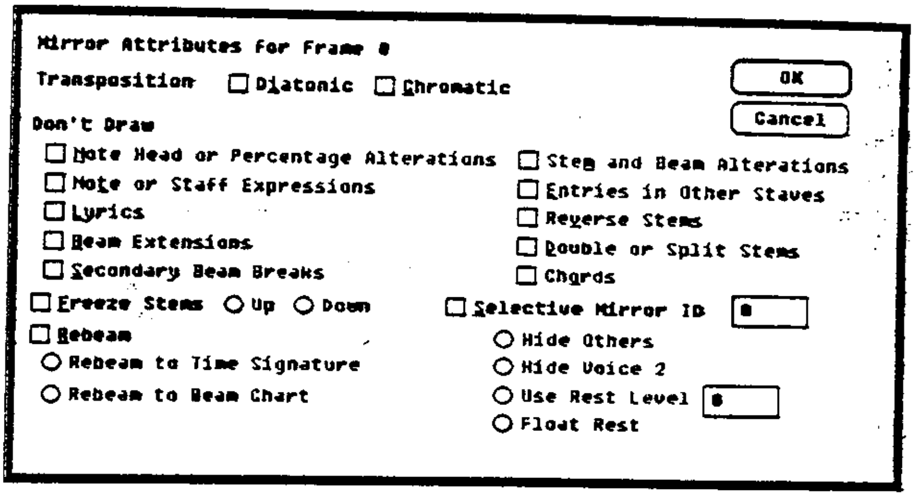
Mirroring can be a time saver, especially if several instruments are playing in unison, or if a recurring motif is used throughout a piece. If you make a mistake or want to revise that motif, you can change the source occurrence of the music without having to reedit all of the other occurrences of it.

To prevent the Mass Mover from performing a normal (nonmirrored) copy, you always need to select the appropriate items from the Mass Mover menu *before* you do your dragging.

- Click the Mass Mover Tool . The Mass Mover menu appears.
- Choose Mirror from the Mass Mover menu. Now you're ready to make the copy.
- Click to the left of the top staff. Remember, clicking to the left of it selects the entire staff
- Drag the first measure directly down, past the second staff, until it's superimposed on the first measure of the *third* staff (Viola).



A large dialog box appears, asking, in essence, what modifications you want to make to this mirror. In this case, you want to transpose the viola line down an octave.



Mirror Attributes for Frame 0

Transposition ☐ Diatonic ☐ Chromatic

Don't Draw

- ☐ Note Head or Percentage Alterations
- ☐ Note or Staff Expressions
- ☐ Lyrics
- ☐ Beam Extensions
- ☐ Secondary Beam Breaks
- ☐ Stem and Beam Alterations
- ☐ Entries in Other Staves
- ☐ Reverse Stems
- ☐ Double or Split Stems
- ☐ Chords

☐ Freeze Stems ○ Up ○ Down

☐ Rebeam
- ○ Rebeam to Time Signature
- ○ Rebeam to Beam Chart

☐ Selective Mirror ID 0
- ○ Hide Others
- ○ Hide Voice 2
- ○ Use Rest Level 0
- ○ Float Rest

- Click Transposition: Diatonic. A box appears, listing all the possible diatonic transpositions.
- Click Down, then Octave (Eighth). Click OK twice (or press Enter twice). When you return to the score, you'll see that Finale automatically copied the music from the first violin staff into the viola staff, transposed it down an octave, and renotated the music for the alto clef.

  Now the fun part. Click the Speedy Note Entry Tool, and click one of the measures in the Violin I part. Click squarely on any notehead and drag it up or down, left or right. Position the crossbar on another note and press the plus (+) key to raise it a half step. When you're finished rearranging the measure, press the zero key to exit the editing frame—and then look at the Viola part. All the changes you just made to the original music were reflected in the mirrored copy.

NASCONDENDO

HIDING STAVES (STAFF TEMPLATES)

If you plan to work on larger orchestral scores, you may become impatient with the time it takes the computer to redraw the screen after each change you make. On a computer with one megabyte of memory, an orchestral screenful can take nearly a minute to redraw.

Finale can speed your work greatly by *hiding* the staves in Scroll View that you're not currently editing. Let's say that you want to work just on the Violin I and Viola lines. Hide the two blank staves so Finale won't waste time redrawing them.

- Click the New Staff Tool. First you'll use the New Staff Tool to tell Finale which staves you want to see.
- Click the handle of the Violin I staff. Then, while pressing the Shift key, click the handle of the Viola staff. Shift-clicking allows you to select several staves one at a time, even if they're not adjacent in the score.

  Now that you've specified the staves, it's time to program one of the Templates.
- While pressing CTRL, choose Staff Template 1 from the View menu. At first it will appear as though nothing has happened. Actually, you've just programmed Staff Template 1 to display only the first and third staves. Try it:
- Choose Staff Template 1 from the View menu. Note that you perform this operation *without* pressing the CTRL key (use CTRL only when *defining* Staff Templates).

  As soon as you select Staff Template 1, the two blank staves vanish. They *are* still part of the file. You can *re-arrange* staves in each Staff View—dragging them up or down as much as you want—without disturbing the staff order in the "full-score" view. You can even *delete* staves from the full-score view. If they were part of a Staff View Template, you can still access and edit them.

Not only can you have four different Staff Views (Templates 1–4) plus the full score, but you can flip easily from one subset of staves to another. When you looked at the View menu, you might have noticed that all of the Staff Templates have Function-key (F-key) equivalents.

- Press F6. Pressing F6 is the same as choosing Show All Staves from the View menu. It brings all the staves out of hiding and restores you to the full view.
- Press F7. This command flips you back into Staff Template 1—in our case, the Violin I/Viola view.

ADDING EXPRESSION MARKINGS: SCORE EXPRESSIONS

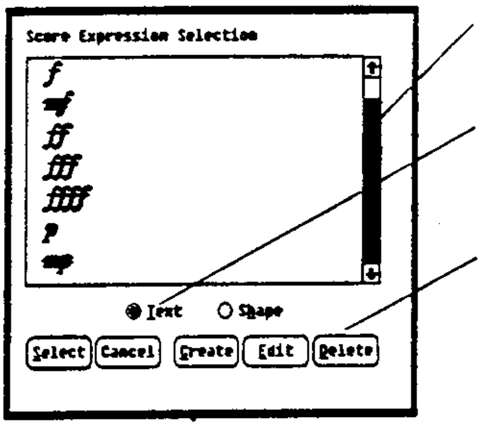
There are three kinds of markings you might want to add to a score. In Finale, they are *Score Expressions,* which appear in more than one staff (such as "Allegro," rehearsal letters, or global dynamics); *Staff Expressions,* which appear in one staff only (such as "To mallets" or dynamics for a specific instrument); and *Note Expressions,* which appear only over a single note (such as accents, staccato marks, and fermatas).

The Score Expression and Staff Expression Tools share the same sets of symbols, which can be stored in separate files called libraries (in the LIBRS directory on your hard disk). The Note Expression Tool uses a library of its own. Technically, you must load one of these libraries into your piece (or else create all new symbols within the program) before you can add them to your score.

In actuality, you probably don't have to bother loading these libraries. They've already been loaded into DEFAULT.MUS, which opens every time you choose new from the file menu. These libraries were also loaded into TUT06.MUS, so you don't need to learn how to load or create a library just yet.

The library system can be very useful, particularly if you're going to be designing your own sets of markings—and not just for avant-garde composers who need squiggles and exclamation points in their music. It could also appeal to opera or musical theater musicians who can store character names in such a library, or classical players who need to add *Allegro ma non troppo* to a score, and want to save themselves the trouble of re-creating these markings for the next piece. Later in this tutorial you'll learn how these sets of markings can be saved into a separate library, ready to load into any other piece.

- Click the Score Expression Tool ☑. Score Expressions are attached to the *measure* you click. They're the only kind of marking that can be attached to an empty measure. For the moment, let's put in an *Allegro* tempo marking.
- Position the cursor above the first measure of the Violin I staff. Click where you want the first letter of the marking to appear. The Score Expression Selection dialog box appears. (If you're ever trying to put in a Score Expression and this window comes up empty, it's because no libraries were loaded into the file.)



Use the scroll bar to move down the list of available expression markings.

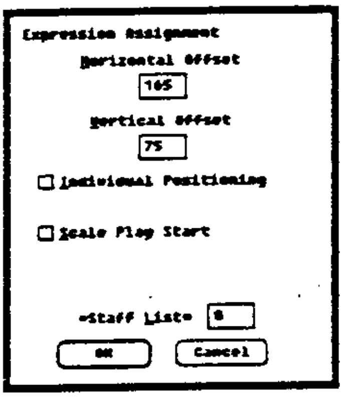
Click Text to view text-based expression markings like the ones you see here. Click Shape to view Shape Expressions like harp pedal diagrams, glissando lines, and so on.

Click Create to add new expression markings, or select an existing expression and click Edit to make changes. Select an expression and click Delete to remove it from the list (as long as it's not being used in the score).

Notice the buttons at the bottom of this window: Text and Shape. These buttons access two different libraries. The one you're currently viewing, Text, contains only words. Even the dynamic markings (such as *p* or *ff*) are simply characters in the Petrucci music font.

If you click Shape, you'll see a new list containing only shapes—slurs, crescendos, glissando lines, and the like. These were loaded from a Shape Expression Library—and they were originally created in Finale's Shape Designer graphics mode. (See "Shape Designer" in the *Finale Encyclopedia.*)

- Be sure the Text button (at the bottom of this window) is selected. Scroll down the list of symbols until you see *Allegro*. Double-click *Allegro*. Another dialog box appears.



Horizontal Offset: 165

Vertical Offset: 75

You'll explore the options in this box later.

- Click OK (or press Enter). The *Allegro* marking is now in both staves. If you want to adjust its position, click the measure once (so that the handle appears). Then drag the marking's handle. The marking moves in all staves at once. (The handle is also useful for removing an expression from the score—just click the handle and press Delete.)

  While dragging the marking is good for general repositioning, you may sometimes need to make finer position adjustments—with the "nudge" keys.

THE "NUDGE" KEYS (THE ARROW KEYS)

If you can't see the Allegro marking's handle, click measure 1.

- Click the *Allegro* marking's handle, and press the left arrow on your keyboard. The *Allegro* marking moves just a *pixel* (screen dot) or two to the left. You may have to look very closely to see it move at all. You can continue to reposition any marking whose handle is selected by pressing the up, down, left, and right arrows.

These four "nudge" keys—the directional arrows—will affect tiny positioning changes on almost any Finale object whose handle is selected, including staves, chord symbols, lyric syllables, elements of a triplet bracket, and Score, Staff, and Note Expressions.

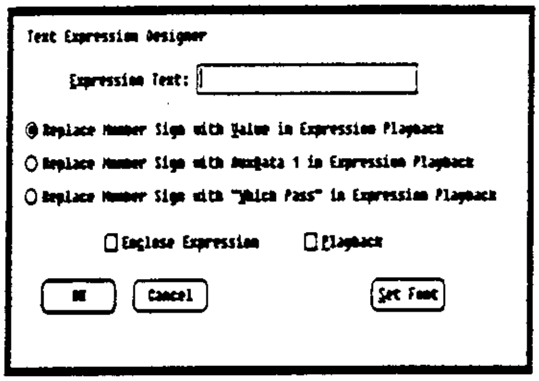
STAFF EXPRESSIONS: CREATING YOUR OWN EXPRESSIONS

Let's suppose that the first violin is sometimes playing with the bow (arco) and sometimes plucking the strings (pizzicato). You won't find these terms in the standard Finale expressions libraries, so you'll need to create them yourself. Each of these markings should appear only in one part, so you'll need the Staff Expression Tool. (A Score Expression appears in more than one staff, but a Staff Expression appears only in a single staff. The only exceptions are "mirrored" scores like this one. A Staff Expression you place in the source staff will also appear in the mirrored staff.)

- Click the Staff Expression Tool, and click above the half note in measure 2 (of the Violin I part). The dialog box will appear only if you're clicking on, below, or above a note or rest. Notice that the list of symbols is exactly the same as the list of *Score* Expressions. Remember that these two tools share the same set of symbols and expressions, although they treat them in different ways.

  You'll also find that the Text Expressions you're seeking, *arco* and *pizzicato*, don't appear in this list.

- Click Create. The Text Expression Designer window appears.

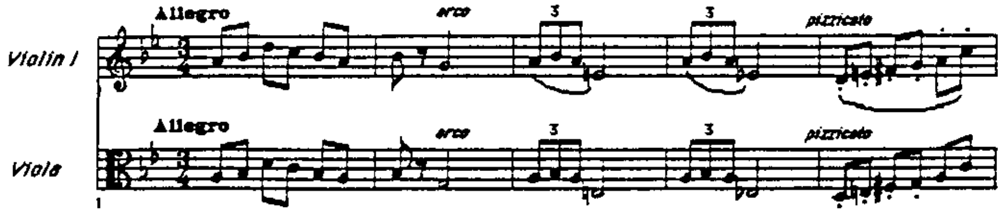

Text Expression Designer
Expression Text:
● Replace Number Sign with Value in Expression Playback
○ Replace Number Sign with Auxdata 1 in Expression Playback
○ Replace Number Sign with "Which Pass" in Expression Playback
☐ Enclose Expression
☐ Playback
OK
Cancel
Set Font

- Type the word "arco." Click the Set Font button, click Italic, and Helv. Click OK or Select in each dialog box to return to the score. As you proceed through the dialog boxes, you may notice that *arco* has been added to the list of expressions. You won't have to create it again.

  When you return to the score, you'll see that the *arco* marking's position was determined by the position of your original click. Feel free to move it.

  If its handle isn't visible, click the note itself and the handle pops into view. Because you ordinarily can't tell which note a particular marking was attached to, you should generally attach a marking to the *closest* note in the score. That way you'll know which note to click if you want to move or delete the marking.

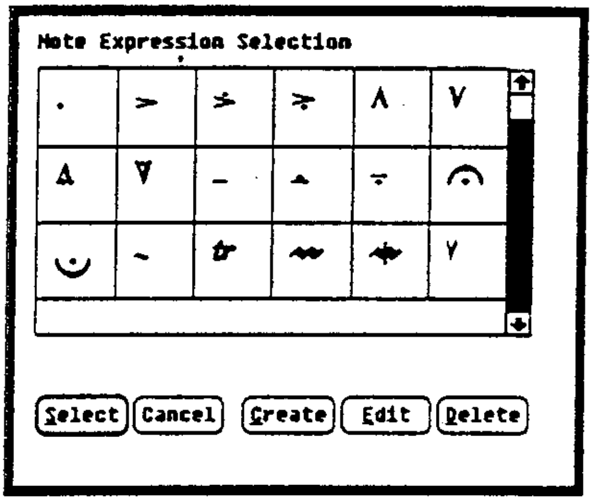
- Scroll to measure 5.
- Click above the first note in measure 5 (of the Violin I part). Create the *pizzicato* expression the same way you created the *arco* marking.



NOTE EXPRESSIONS

Now let's put some articulations into the score—an accent mark, for example. Scroll back to the beginning of the score.

- Click the Note Expression Tool. The placement of your next click is important, because it determines where the mark's handle will be.
- Click under the first half note in the Violin I part (measure 2). The Note Expression Selection box appears.



- Double-click the accent mark (top row, second from left). Double-clicking a Note Expression in this palette is the same as clicking once and then clicking Select.

  When you return to the score, you can move the mark by dragging its handle. If its handle isn't visible, click the note itself and the handle appears. (You can also delete a mark by clicking its handle and pressing Delete.)

  You may have noticed that the accent mark didn't appear centered under its note, even though its handle did. That's because the accent is attached to its handle on the *left* side. To place an accent mark, you might want to click the target notehead just left-of-center.

PUTTING IN MANY ARTICULATIONS: METATOOLS

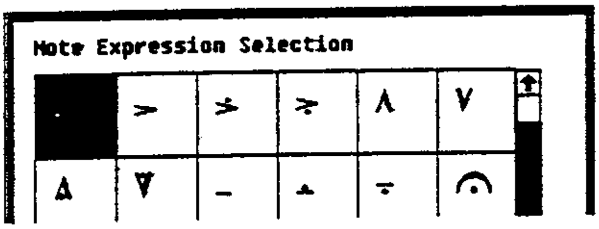
The system you've just learned for putting in expressions is fine for the occasional *arco* or dynamic marking. But what if you have a series of accented eighth notes? Do you have to go through the Note Expression dialog box for every single note?

No. You can assign any expression to a single key on your computer keyboard and bypass the dialog boxes altogether. You may have already encountered this principle of *Metatools* in earlier tutorials. You assign one symbol to each of the number keys, 1 through 8. The Note Expression Tool has one set of eight, and the Score/Staff Expression tools share another set of eight.

The basic formula for working with Metatools is always the same: Press *CTRL-number* to program the keystroke, then use *the number key alone* to enter the marking into the score. Let's try it.

- Click the Note Expression Tool.
- While pressing CTRL, press the 1 key. You can use either the numeric keypad (with Num Lock ON) or the top row of numbers on your keyboard. In either case, the Note Expression Selection box appears.

- Double-click the staccato mark (·).



When you return to the score, it may seem that nothing has happened; no new mark appears in the score. But something has indeed happened—you've successfully programmed a Metatool.

- Position the cursor below the first note in the Violin I staff (measure 1). While pressing the 1 key, click. Finale pops a staccato mark into the score. The square handle is larger than the dot itself, so all you see is a handle. Choose Redraw Screen from the View menu—or press CTRL-D—to see the dot.
- While pressing the 1 key, click beneath the second note. Repeat this process for the rest of the notes in measure 1. If the dots aren't showing up, press CTRL-D to redraw the screen.

As you can see, using a Metatool saves you the trouble of selecting this mark from a dialog box each time you want it. You can program keys 2–8 with other symbols: 2 might be an accent, 3 a fermata, 4 a stress mark, and so on. Keep track of your Metatool assignments, then just click a note while pressing the appropriate number key, and your marking appears.

Staff and Score Expressions can also have their *own* set of eight Metatools. 1–4 might be dynamics you use often, 5 and 6 might be *cresc.* and *dim.*, and so on. You create the Metatools the same way. Select the tool, press CTRL, and press the number. After the expression selection window appears, double-click the desired expression. (Both Text Expressions and Shape Expressions may be programmed to Metatools.) When you're ready to put the marking into the score, press the number key alone and click where you want the marking to appear.

When you save your file, all your Metatool assignments are saved too, so that you can continue placing expressions using Metatools the next time you open the file. You can also redefine your Metatools at any time. You might decide to place all your dynamic markings (*f*, *p*, and so on) into the score at once (by assigning them to Metatools 1 through 8). After assigning your dynamic markings, you could redefine all eight Metatools to be tempo indications (*Allegro, Adagio,* and so on). You can then make a second pass through your score.

MARKINGS THAT PLAY BACK

Now that you've put a few accents and staccatos in your score, play back the first few measures. You'll notice that your staccato marks and accents actually affect the articulation of the notes in playback!

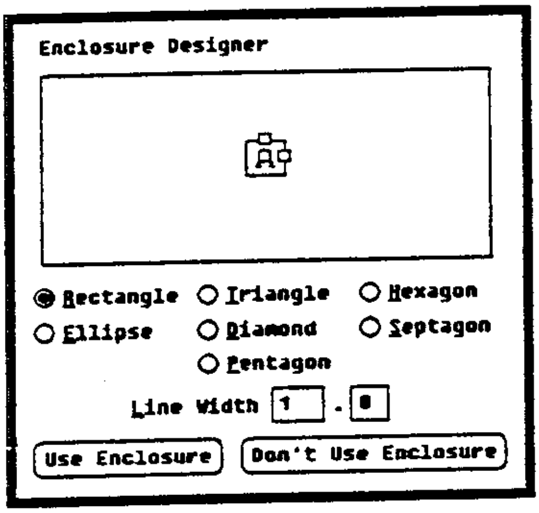
You'll soon discover that all of the dynamic markings (in the Staff Expression and Score Expression tools) and some of the Note Expressions have been *defined for playback*. As soon as you place them into your score, they affect the playback in a musical way. You can create your own expressions and markings, and define them for playback, too. Any word or shape can affect any MIDI variable when you play your score—key velocity (volume), tempo, transposition, patch, MIDI channel, pitch bend, pedal, and so on. In Tutorial 7, "Advanced MIDI Topics," you'll learn how to program your own intelligent score markings.

SPECIFYING TARGET STAVES: STAFF LISTS

In the last sections, you examined the Score Expression Tool, which puts a given expression into *every* staff, and the Staff Expression Tool, which puts an expression into only *one* staff. Sometimes you might need something in between—a marking that is to appear in every staff *of the woodwind section only.*

You're in luck. Finale's Score Expression Tool has a built-in feature called Staff Lists, which lets you establish predefined groups of staves in which a given marking is to appear. These staves needn't be adjacent—you might use a Staff List to place a rehearsal letter over the *first* staff in every orchestral section.

- Press F6 to display all four staves. You'll recall that Finale has been displaying one of the Staff Templates—which had been programmed to hide the two blank staves. F6 has the same effect as choosing Show All Staves from the View menu.
- Click the Score Expression Tool ☑. Scroll to measure 4, and click just above the left barline. The standard list of expressions appears. In this example, you'll add a rehearsal letter.
- Click Create. Type a capital A, and click Enclose Expression. When you click Enclose Expression, a box appears asking what shape you want to enclose this marking with.



Enclosure Designer

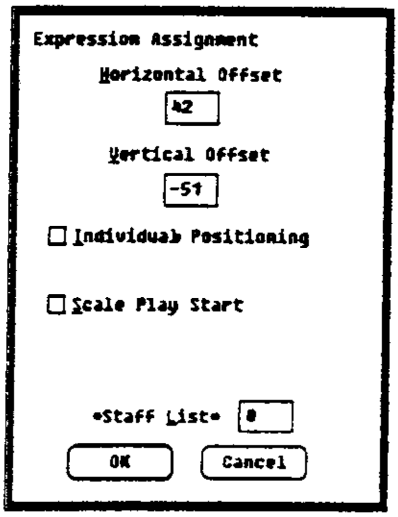
● Rectangle ○ Triangle ○ Hexagon
○ Ellipse ○ Diamond ○ Septagon
○ Pentagon

Line Width 1 . 0

The default choice, Rectangle, is fine for our purposes.

If you wanted to, you could change the size, positioning, and line thickness of this enclosure. Leave it alone for now.

- Click Use Enclosure, then press Enter twice. Don't, however, OK your way past this dialog box:



Expression Assignment

Horizontal Offset: 42

Vertical Offset: -51

☐ Individual Positioning

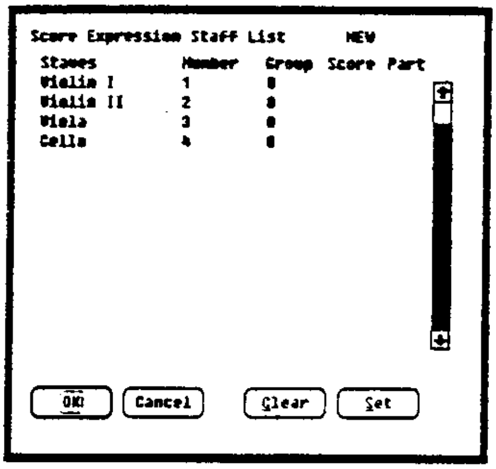
☐ Scale Play Start

Staff List: 0

There are several items of interest in this box. One of them, Individual Positioning, allows you to put this score expression into several staves at once—and yet reposition each one independently. If you don't click this box, the positioning of this marking will change in all staves at once when you move any one of them.

At the moment, though, we're most interested in the bottom option: *Staff List*.

- Click *Staff List*. In this box, you see a list of the staves in your score, including their names, numbers, and group numbers (you worked with *grouping* staves—which permits bracketing—in an earlier tutorial). The best part of all is on the right: two columns labeled Score and Part.

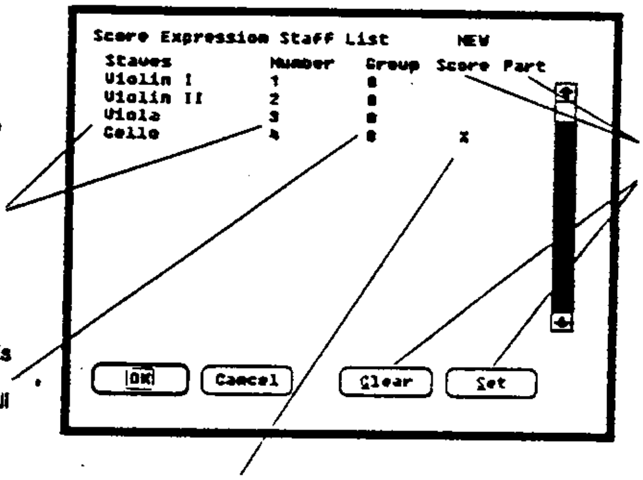


Score Expression Staff List NEW

Staves	Number	Group	Score	Part
Violin I	1	0		
Violin II	2	0		
Viola	3	0		
Cello	4	0		

When you click in the Score column across from a staff name, an X appears. You've just told Finale to put the expression into this staff. You may check as many or as few staves as you like. In fact, you can put an X in all staves (or remove Xs from all staves) by clicking the *word* Score at the top of the column, and then clicking Set (or Clear).

Take special note of the column called Part. If you click here, the expression in question will appear in this staff's extracted part when you print individual parts. You can put Xs independently in the Score and Part columns. Therefore, you can have a tempo marking that appears only once in the full score (at the top of the page), yet appears in every *extracted part*. (Instructions for part extraction appear in Tutorial 8.)



Score Expression Staff List NEW

Staves	Number	Group	Score	Part
Violin I	1	0		
Violin II	2	0		
Viola	3	0		
Cello	4	0	X	

Click a staff name or number to place Xs in the Score and Part columns (for the staff you clicked).

Click a staff group number to place Xs in the Score and Part columns for all the staves in the group.

To add (or remove) Xs, click Score or Part; then click the Set (or Clear) button.

To add (or remove) an X for a single staff in a single column, just click in the column.

Just for practice, put the rehearsal letter into the Violin I and Cello parts.

- Click the words Violin I and Cello. Each click puts an X in both the score and the extracted parts for these staves. If this were a real project, you'd also put Xs in the Parts column for the remaining staves—because you'd want these rehearsal letters to appear in every instrument's part without cluttering up the conductor's score.
- Click OK. There's now a number, 1, in the text box beside "Staff List". Finale will remember this configuration in case you want to use it again (which, in the case of rehearsal letters, you probably will). When it comes time to put rehearsal letter B into the score, you won't need to enter the Staff List dialog box at all—just type a 1 into this text box and click OK.
- Click OK to return to the score. The rehearsal letter A appears only in the staves you specified.

  You might ask: If I put a dynamic into the score, but use a Staff List so that it only appears at the top of the conductor's score, will it affect the *playback* of all the other staves?

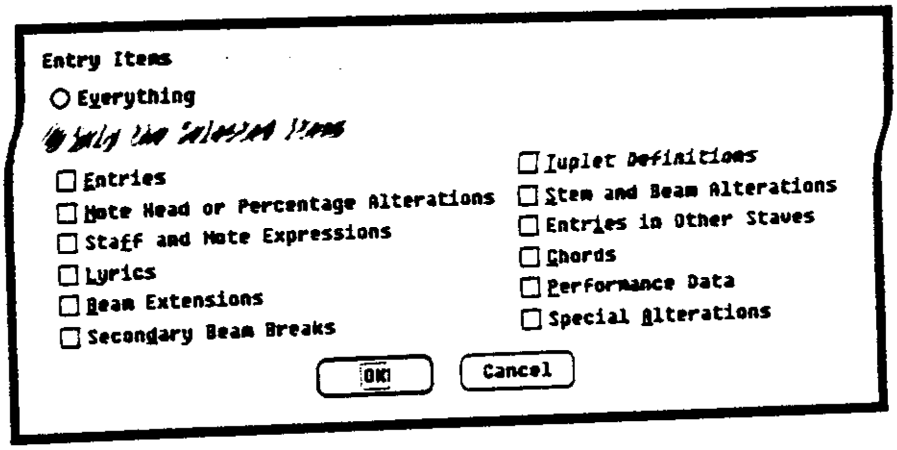
  Actually, that's up to you. If you want a Score Expression to affect playback of staves in which it doesn't appear, put a check mark across from those staves in the *Part* column of the Staff List dialog box.

COPYING AND PASTING EXPRESSIONS

If you've painstakingly put staccato, accent, and stress marks into your first trumpet part, you certainly don't want to have to reenter them into the Trumpet II, III and IV parts. Finale allows you to copy them onto any other music in the score, even if the notes are different.

- Click the Mass Mover Tool ⊞ and use the scroll box to place measure 5 at the left edge of the window.
- Choose Copy and Replace, then choose Move Only from the Mass Mover menu.

- Choose Entry Items (under Move Only) from the Mass Mover menu. The Entry Items command, you may have noticed, was dimmed before you chose Move Only in the previous step. A dialog box now appears, asking which elements of the music you'd like to copy. Notice that you can choose any combination of these elements.



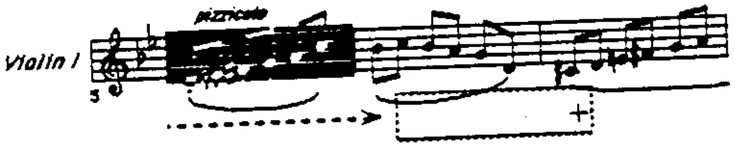
Entry Items

○ Everything

● Only the Selected Items

☐ Entries
☐ Note Head or Percentage Alterations
☐ Staff and Note Expressions
☐ Lyrics
☐ Beam Extensions
☐ Secondary Beam Breaks
☐ Tuplet Definitions
☐ Stem and Beam Alterations
☐ Entries in Other Staves
☐ Chords
☐ Performance Data
☐ Special Alterations

- Click Staff and Note Expressions and click OK (or press Enter). Now that you've specified *which* items you want copied, all that remains is for you to specify where you want them copied *from and to*.
- Click measure 5 in the top staff to highlight the music whose articulations you want to copy.
- Drag the highlighted measure so that it's superimposed on measure 7 (of the same staff).



Finale asks how many times you want the articulations copied. The default value, 1, is what you want.

- Click OK (or press Enter). Finale copies the articulations from measure 5 to the notes of measure 7.

  If the rhythmic values of the notes in the source and target measures aren't identical, Finale does its best to place your articulations on any notes that *do* occur on the same beats. The positions of your articulations relative to the new notes will be the same as they were in the source measures. Sometimes (when the stem directions of the target measures are different) you may have to move the articulations.

The technique you just used to copy the articulations from one place to another is an important one, and you can use it any time you need to copy one element of the music to another spot. A common example is chord symbols. In a verse-chorus-verse song, you need only enter the chord symbols for the first verse. Then, with the Move Only/Entry Items method you just used, you can copy *just* the chord symbols from the first verse to the last verse—even if the melody is different each time. If the last verse is in a different key, Finale intelligently and automatically transposes the copied chord symbols to the new key.

USING EXPRESSION LIBRARIES

Suppose you're finished with your string quartet. Along the way you've created a number of expressions—*pizzicato*, *arco*, and rehearsal letters, among others. It might save you time later if you put them into a file of their own, ready to use in any other piece that might require them.

- Choose Make Library from the File menu. A dialog box appears, asking which element of this Finale file you want to store separately.
- Click Text Expressions, then click Make (or press Enter). You're now asked to give this library a title.
- Type a filename (8 characters or less) followed by the extension .LIB and click Make (or press Enter). The next time you need these markings, open the file in which you want to use them. Choose Load Library from the File menu, and double-click this file in the list box that appears. Thereafter, when you use the Staff Expression or Score Expression tools, you'll see the imported markings in the list, ready to use.

After you exit Finale, you may want to place this library into the LIBR directory so you can find it easily the next time you want it.

When you're ready to continue

Save your file if you want.

For more information

Some of the entries in the *Finale Encyclopedia* contain mini-tutorials pertaining to topics you've just covered. See, for example:

Accents
Expressions: Score Expressions
Expressions: Staff Expressions
Expressions: Note Expressions
Hiding staves
Mirroring
Rehearsal letters
Staccato
Staff names
Staves

ADVANCED MIDI TOPICS

It may be that you're more interested in using Finale as a notation-based pseudo-sequencer than as a notation program. If so, this tutorial will introduce you to some of Finale's special MIDI capabilities.

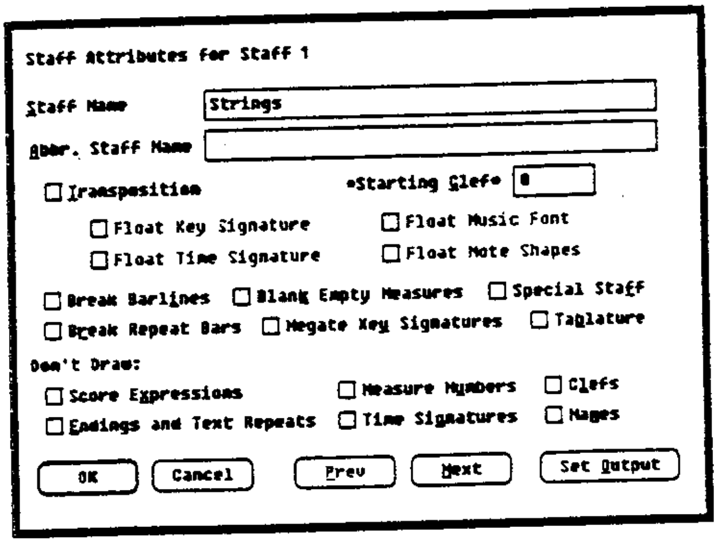
Assigning MIDI Channels and Output Routes

Up to this point, you've been listening to all of Finale's playback over a single MIDI channel—the default, channel 1. Not only can every staff play back on a different channel, but you can even have *separate voices* within a single staff send their music to different channels. Furthermore, you can put channel and patch changes in any staff at any time.

If you're new to MIDI, just a reminder: to have each staff play its own sound, you must have a *multitimbral* synthesizer—it must be capable of playing more than a single sound, or *patch,* at once. (Or you could use more than one *mono*timbral synthesizer, each "tuned" to a different MIDI channel.) Most of the newer synthesizers have some multitimbral capabilities—they can produce four, eight or even sixteen different patches at once.

For this tutorial, you need to be sure your synthesizer is in its multitimbral mode. Check its manual. (Often this means setting the synthesizer to "Poly" mode. "Omni," which is usually the default, will play all incoming MIDI signals on a single patch. You don't want "Mono" either, another common option, where only one note can sound at a time.)

- Open the file called TUT07.MUS. This file is a short arrangement for piano, bass, strings, and harp.
- Configure your synthesizer with MIDI channel/patch pairings as follows: Channel 1—strings, Channel 2—harp (or guitar), Channel 3—piano, Channel 4—bass (acoustic or electric). Consult your synthesizer's manual for instructions on assigning a different patch to each MIDI channel. If you don't have patches that exactly match the list above, substitute any similar sounds you do have.
- Click the Staff Attributes Tool, and click handle of the top staff (Strings). The Staff Attributes window appears.



Staff Attributes for Staff 1

Staff Name: Strings

Abbr. Staff Name:

☐ Transposition

•Starting Clef• 0

☐ Float Key Signature ☐ Float Music Font

☐ Float Time Signature ☐ Float Note Shapes

☐ Break Barlines ☐ Blank Empty Measures ☐ Special Staff

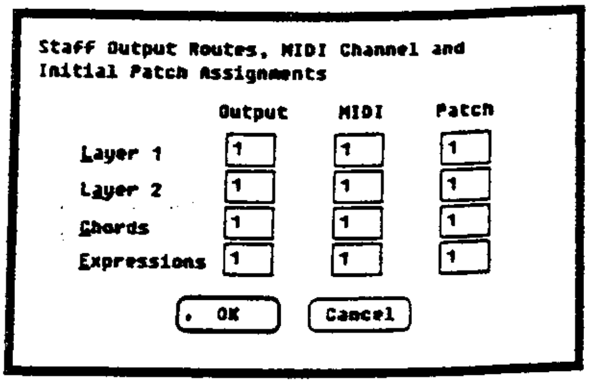
☐ Break Repeat Bars ☐ Negate Key Signatures ☐ Tablature

Don't Draw:

☐ Score Expressions ☐ Measure Numbers ☐ Clefs

☐ Endings and Text Repeats ☐ Time Signatures ☐ Names

- Click Set Output. The Staff Output box appears.



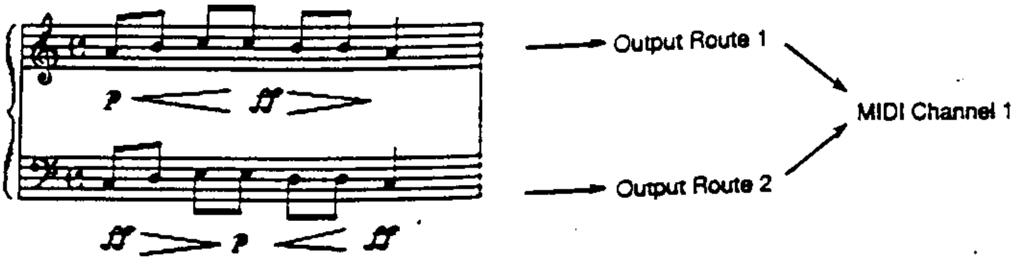
Staff Output Routes, MIDI Channel and Initial Patch Assignments

	Output	MIDI	Patch
Layer 1	1	1	1
Layer 2	1	1	1
Chords	1	1	1
Expressions	1	1	1

In this dialog box, you can specify the playback routing for four staff elements: Layers 1 and 2 (independent voices on the staff), chord symbols, and expression markings. (We'll be discussing the Layer 1/Layer 2 mechanism in Tutorial 8.)

The only new concept here is called Output Routes. Finale can play music over 64 MIDI channels at once—16 through each of up to 4 MIDI ports. (To do this, you must have 4 MIDI interface cards that do not conflict, and you must specify this configuration with the MIDI Setup command in the Special menu.)

Yet Finale offers even more flexibility by providing Output Routes, which are *dynamically independent* mini-channels *within* each MIDI channel. If you write a piano part, for example, you'll certainly want both staves to play over the same MIDI channel (the same piano sound). But suppose the left hand is playing softly and the right hand loudly—in that case, you would want to assign each to a different *Output Route*, so that the dynamics of each staff can rise and fall independently within that single MIDI channel.



If you don't have several staves (with different dynamics) within each MIDI channel, just type the same number into the Output Route and MIDI Channel boxes, as you'll do in this example. You want to assign this first staff to Output Route 1. Because 1's appear in the text boxes already, there's nothing more you need to do.

Note that you don't have to enter patch numbers into the Patch text boxes. That's because you've already established the MIDI channel/patch relationship (on your synthesizer). Even if you did enter patch numbers into the Patch boxes, Finale would ignore them unless you specifically instructed it to do otherwise.*

- Click OK (or press Enter). You return to the Staff Attributes box.

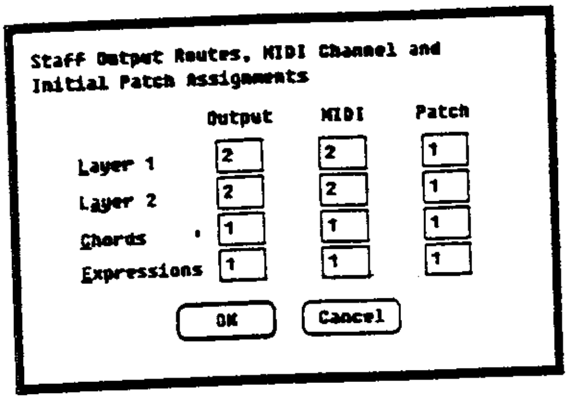
You've just directed the top staff to play back over MIDI Channel 1. Let's advance to the next staff and assign it to MIDI channel 2.

- Click Next, then click Set Output. Fill in the Output and MIDI Channel boxes with 2's, as shown below. Don't forget that you can press Tab to move from box to box.

---

* To do so, click OK twice to return to the score. Choose Options from the Special menu. Select "Send Patches Before Play" and click OK (or press Enter). Be aware, however, that if you use this method, Finale will disrupt any MIDI channel/patch configurations you've set up on your synthesizer as soon as it starts to play.

Because this piece doesn't have any chord symbols or Score Expressions, you don't have to fill in the bottom two rows of text boxes. For a more complete discussion of Output Routes—including uses for the Chords and Expressions text boxes—see "MIDI channels" in the *Finale Encyclopedia.*



Staff Output Routes, MIDI Channel and Initial Patch Assignments

	Output	MIDI	Patch
Layer 1	2	2	1
Layer 2	2	2	1
Chords	1	1	1
Expressions	1	1	1

- Click OK (or press Enter). Then click Next and click Set Output. For this staff (the right hand of the piano), type 3's into the Output Route and MIDI boxes.
- Click OK (or press Enter). Then click Next and click Set Output. This fourth staff represents the lower piano staff. For the first time, the Output Route will have to differ from the MIDI channel, because you want this staff to play over *the same MIDI channel* as the previous staff (channel 3)—but you want to be able to hear variations in dynamics in each staff independently.
- Enter 4 in the Output Route boxes for Layer 1 and Layer 2. Enter 3 in the corresponding MIDI channel boxes. Click OK (or press Enter). Finally, repeat the process for the fifth and last staff:
- Click Next. Click Set Output. Enter 5 in the Output Route boxes for Layer 1 and Layer 2, and 4 in the corresponding MIDI channel boxes. Remember, the bass was assigned to MIDI channel 4. But because you've already used Output Route 4 (you assigned it to the lower piano staff), you have to assign this staff to Output Route 5.
- Click OK twice (once in each dialog box) to exit. You return to the score. Now give it a try.
- Click the Playback tool to select it and be sure that Create a Temp Disk File and Play It is selected in the Playback Settings dialog box.
- Click the first measure and, when the next dialog box appears, click OK. If your synthesizer is correctly configured, you'll hear this arrangement in all its four-part multitimbral glory.

  Before you continue, choose Save from the File menu so that this piece will be ready to play the next time you open it. (Don't forget to configure your synthesizer accordingly.)

ADDING "TRACKS" (OPTIONAL SECTION)

In a true sequencer program, you can record one track—a bass line, for example—and then, while it plays back, simultaneously overdub a second track, such as a piano line. Finale gives you the power to "overdub tracks," too, but it takes a few extra steps. If you don't think you'll be using this feature, feel free to skip ahead to the next section.

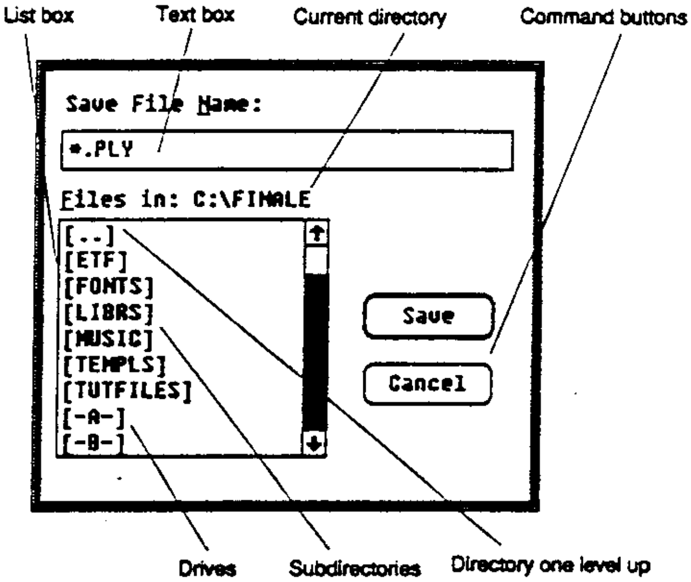
Open the file named TUT07A.MUS. When it appears on the screen, you'll see that it's a piano part with a blank staff above it. In this experiment, you'll add a solo line to this staff while listening to the piano part. If you're not improvisationally inclined, that's OK. We've provided a sample for you to play from.

You'll be using the Transcription Tool for this experiment. To have an existing track play back, you have to create a Playback File of it. A Playback File is the same kind of "audio-only" file you created earlier when using the playback-to-disk option. It's created with the Playback Tool.

Note that the Playback File you're creating will, upon playback, sound exactly the way it was in the score. It's a good idea, therefore, to listen to your score before creating a Playback File of it. For example, if it turns out that the default tempo was too slow, you have to create another Playback File with a different tempo. You must make all settings before creating the file.

First listen to the piece. Set your synthesizer so that MIDI channel 1 is a piano sound.

- When you've heard enough, click in a blank area of the window to stop playback.
- Choose Playback Settings from the Playback menu.
- Click Create a Playback File, then click OK (or press Enter). Whenever you return from the Playback Settings menu, you must click a measure to tell Finale where to begin.
- Click the first measure of the score. Finale will compute for a moment, and then you'll be given an opportunity to title the Playback File.



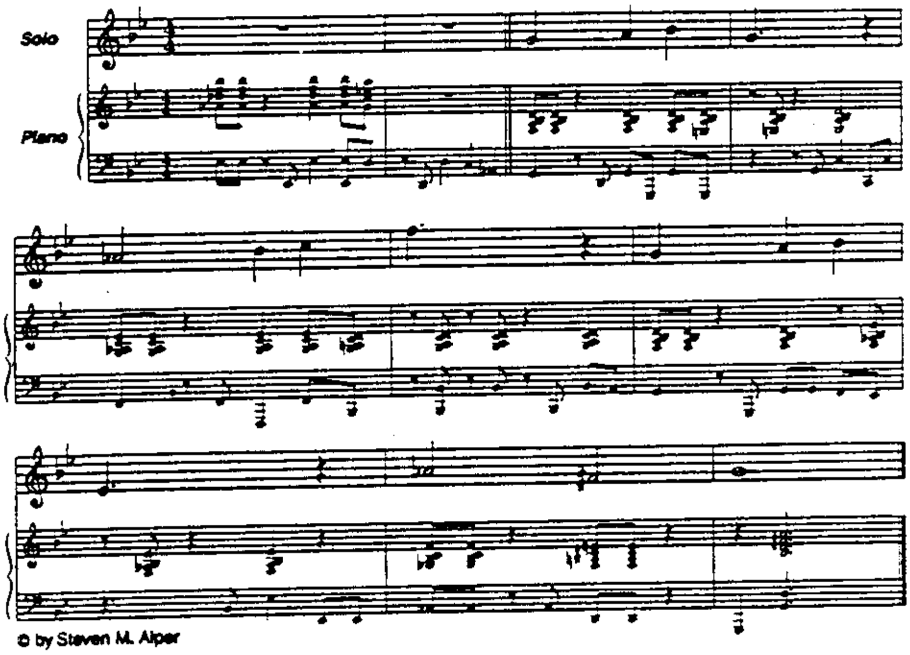
Save File Name:
*.PLY
Files in: C:\FINALE
[..]
[ETF]
[FONTS]
[LIBRS]
[MUSIC]
[TEMPLS]
[TUTFILES]
[-A-]
[-B-]

- Type PNO.PLY and click Save (or press Enter). (The .PLY file extension identifies this as a playback file.) Now you've stored the existing tracks. All that remains is to enter the Transcription window and play the new track while listening to the Playback File.
- Click the Transcription tool, then click the third measure of the top staff. You're now in the Transcription window. Note that the Background File check box is selected.

☒ Background File

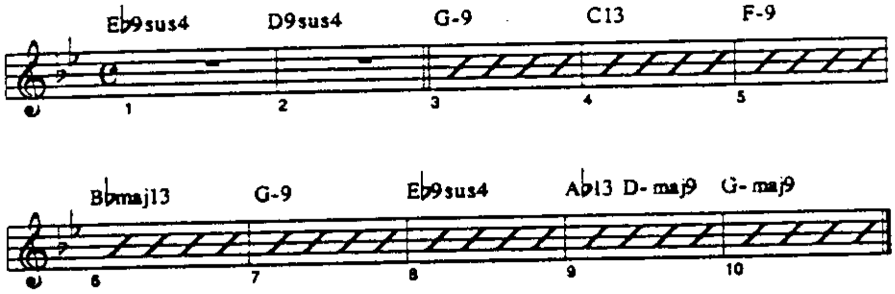
Finale is letting you know that it has placed your Playback File in the "background." You'll hear it play back when you make the new recording.

- Choose New from the File menu. Any music left in the window is now cleared.
- Click Start. The background file begins to play. Play a little single-line solo along with it. If you are *not* improvisationally inclined, here's one possibility:



© by Steven M. Alper

If you *are* improvisationally inclined, here's a chord chart:



When the Background File ends, click anywhere (except on a button) to stop recording.

- Choose Select All from the Edit menu. If you had recorded a totally new piece of music, you'd have to walk through all the steps you learned in the Transcription Tool tutorial that involved recording Time Tags (tapping on a key or pedal in time to the music). The beauty of using a Background File is that Finale *already knows* where the beats fall, since the music already exists in notated form. Therefore, the beat-tapping process is eliminated.
- Choose Tags From Background File from the Time Tag menu. Finale puts the Time Tags into your improvisation automatically.
- Choose Align Tags To Notes from the Time Tag menu and click OK (or press Enter). You'll remember that this command tells Finale to adjust the positions of the Time Tags, if necessary, so that they align properly with the notes you recorded.
- Choose Assign Measure Tags from the Time Tag menu. Finale puts a tiny M above every fourth Time Tag. These are Measure Tags, and they identify the first beat of each measure.
- From the Transcribe menu, make sure the following items are selected (display check marks): Floating, No Voice Two, and Expand Minimums. If you need to choose Floating, the Floating Quantization dialog box will appear. Choose Non-Timed Tuplet and click Float.

  Since this isn't a two-handed performance, there shouldn't be any check marks beside the Split items (at the top of the Transcribe menu).

- Click the Transcribe button. If all went well, you've just added a solo line on the top staff. If the results weren't quite what you expected, feel free to click the third solo-line measure again to reenter the Transcription window. Then experiment with the quantization settings and retranscribe. If you're still having difficulty, consult Appendix 3 (the "Real-Time Transcription Settings Guide") in *Finale Reference.*

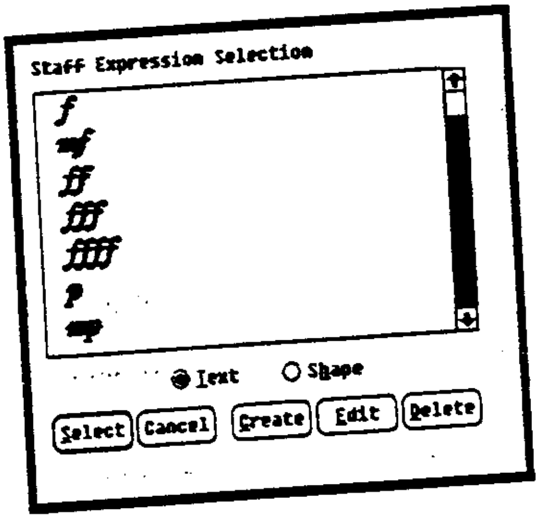
Each time you create a Playback File (as you've just done) and enter the Transcription window, Finale automatically loads it into the background and sets the Background File check box. Once you get the hang of creating a Playback File from the score, then reentering the Transcription window, you can cycle through as many times as you like, [illegible] If you [illegible] want Finale not to play the most recent Playback File as you record a new track, click Background File and then Cancel.

NOTE, STAFF, AND SCORE EXPRESSIONS: DEFINING PLAYBACK

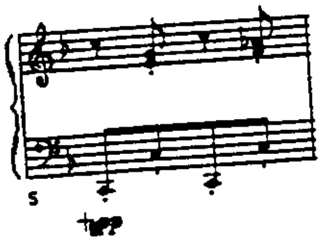
One of the most remarkable aspects of Finale is its ability to respond to musical markings in the score during playback. When Finale sees *f*, the music gets loud. When it sees a staccato mark, it plays the note shorter. What's more, you can define *any* symbol or textual phrase—whether or not it's a standard musical marking—and define the effects it will have on Finale's playback.

Open the file named TUT07B.MUS.

- Click the Staff Expression Tool .
- Scroll so that measure 5 is at the left edge of the window.
- Click below the first left-hand note in measure 5. The Staff Expression Selection dialog box appears, filled with Text Expressions.

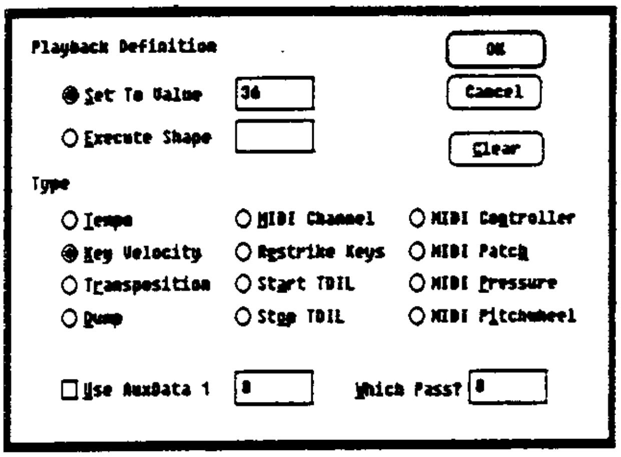


- Double-click the ***pp*** mark. In the subsequent dialog box, click OK (or press Enter). You've placed the ***pp*** mark in your score. Drag the expression into position.



- Click below the first note, bottom staff, of measure 7. Once more the dialog box appears.

- *Double-click the mf mark. OK the subsequent dialog box. Adjust the position of the new expression.* Now listen to the new dynamics.
- Scroll to the beginning of the piece and play back the score from measure 1. Sure enough, Finale obeys your dynamics. Now let's see why.
- Using the Staff Expression Tool, click the note to which the ***pp*** mark is attached. The mark's handle appears.
- CTRL-Shift–double-click the handle. The Playback Definition box appears. (A full list of Finale's Shift-clicks, CTRL-clicks, and CTRL-Shift-clicks appears in Appendix 1 of *Finale Reference,* "Finale Tools.")



Playback Definition

● Set To Value: 36

○ Execute Shape:

Type

○ Tempo ○ MIDI Channel ○ MIDI Controller

● Key Velocity ○ Restrike Keys ○ MIDI Patch

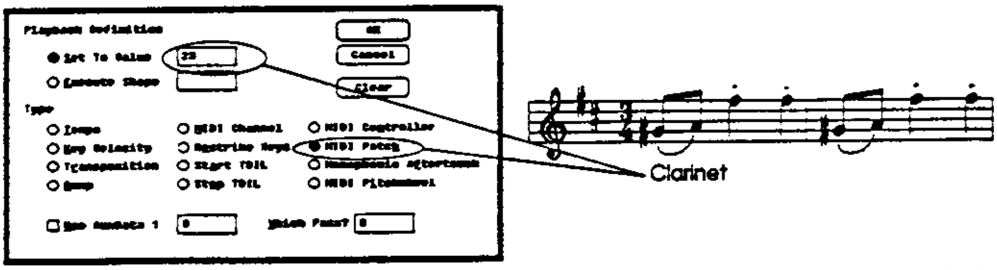
○ Transposition ○ Start TDIL ○ MIDI Pressure

○ Dump ○ Stop TDIL ○ MIDI Pitchwheel

☐ Use AuxData 1: 0 Which Pass? 0

It's here that you can specify the MIDI playback effects of this marking. Take a look at the playback definition of the ***pp*** marking. The Key Velocity and Set To Value buttons are selected, and the number 36 appears in the Set To Value box. The creator of this marking decided that the ***pp*** marking should set the Key Velocity of the music it affects to 36. (The scale of MIDI velocity goes from 0—silence—to 127—very loud.) When Finale reaches the ***pp*** marking, it will play all notes at velocity (volume) 36—at least until it encounters another dynamic marking.

Some of the other MIDI variables you can attach to a score marking are extremely useful. For example, by selecting MIDI Patch you could make the word Clarinet switch the playback of its staff to a clarinet sound from an existing sax sound. Just type the number of your synthesizer's clarinet patch into the Set To Value box when you create the expression.



By selecting MIDI Patch and entering a patch number (in the "Set To Value" box), you can create a playback definition for the Staff Expression "Clarinet."

Similarly, if you're creating an 8^{va} marking, you could define it to transpose the affected music up an octave. In its Playback Definition dialog box, you'd click Transposition and type 12 in the Set To Value box (up 12 half steps). Notice that the written notes don't get transposed—only their playback. Note, too, that Finale will *continue* to play the music up an octave until it encounters *another* expression that you've defined to return the playback to its normal register (by clicking Transposition and entering zero in the Set To Value box).

- **Click Cancel to return to the score.** To make sure you understand the concept, let's create a new expression—a *Presto* tempo indication.

CREATING AN INTELLIGENT TEMPO MARKING

- **Click the Score Expression Tool ☑, then click just above the beginning of measure 4.** The Score Expression dialog box appears. If you scroll through the list you'll see that *Presto,* the expression you want to create, doesn't appear in the list.
- **Click Create.** The Text Expression Designer appears, waiting for you to type in the text for your new marking. Note that you don't *have* to have any text at all—it's perfectly legal to attach a playback definition to an invisible marking. (You can see its handle in the score when you click the measure to which you attached it. Just remember which measure you attached it to, or you'll never find it again!)
- **Type Presto.** If you like, you can change the font and size of your text expression by clicking Set Font.
- **Click the word Playback.** The Playback Definition box appears.
- **In the Set To Value box, type 180 and click Tempo.** The number you type here indicates quarter notes per minute.
- **Press Enter four times.** You return to the score. To move the *Presto* marking, click the measure so that the marking's handle appears, and drag it anywhere you want. (You can delete any marking by clicking its handle and pressing Delete.)

  Now the fun part: listen to your sudden tempo change.

- **Play back the score from measure 3.** Click the Stop button if you want to halt the playback.

  If you had clicked measure 5 (after the *Presto* marking) instead of measure 3 (before the marking), would Finale play in the new tempo, even though the tempo change occurred in the measure before your click?

  That's up to you. Using the Playback tool, choose Playback Options from the Playback menu. Note the option here called Fetch Expression Settings. If you select this option, Finale *chases* the expression markings from the beginning of the piece to the measure you want to hear—in other words, Finale quickly scans the music to find tempo and dynamic markings that occur prior to your starting point and then incorporates them into playback. If New Expression Settings is selected instead, Finale ignores any tempo or dynamic markings that precede the measure you clicked.

- **Click Cancel to return to the score.**

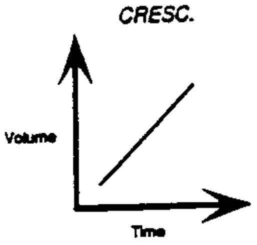
EXECUTABLE SHAPES: BUILDING A RITARD

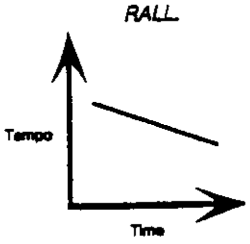
In the last section, you created an expression marking that affected the playback of the music. All the expressions you've examined so far have had *fixed* playback parameters. A sudden tempo change, a change in dynamic, or a transposition to a new octave—all of these examples involve one instantaneous change that, once made, has no further effect on playback.

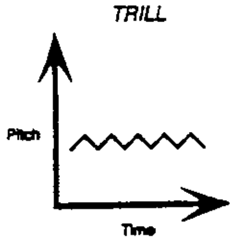
Some expression markings, affect music *over time.* A crescendo, for example, makes the music get steadily louder as the beats go by. An accelerando changes the tempo bit by bit. A pitch bend involves a MIDI controller generating dozens of new values *every second.*

While the Set To Value button is ideal for creating one-time changes in tempo, volume, or MIDI channel, it's useless for creating playback effects that change over time. What you need is a different method for defining playback effects—preferably one that lets you govern not only how much the variable changes over time, but also at what rate.

To address this problem, Finale offers a second method of defining a marking's playback: *Executable Shapes.* An Executable Shape is a line or curve you create in Finale's Shape Designer whose contours Finale "reads" to determine the level of change in playback. For example, here are some typical Executable Shapes:



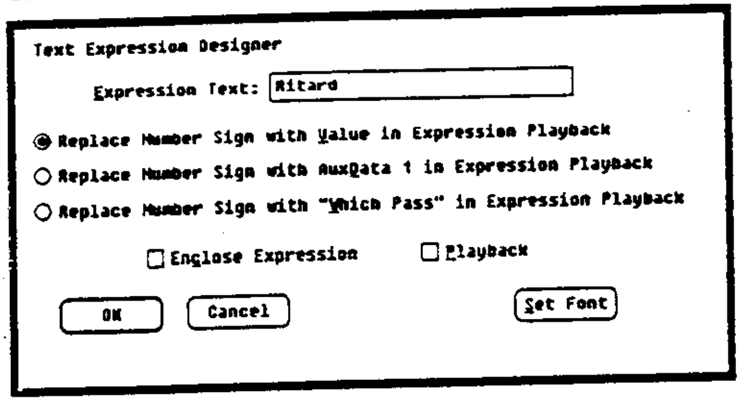




You can find a mini-tutorial for creating each of these expressions in the *Finale Encyclopedia*. For the moment, let's create a ritard, where the tempo is governed at all times by an Executable Shape. We'll assume that the file named TUT07B.MUS is still open.

84

- Scroll to measure 15.
- Click the Score Expression Tool ☑. Click below the bottom staff of measure 15. The Score Expression Selection box appears. The *ritard* expression doesn't appear here, so you'll have to create it yourself.
- Click Create. The Text Expression Designer dialog box appears.



Text Expression Designer

Expression Text: Ritard

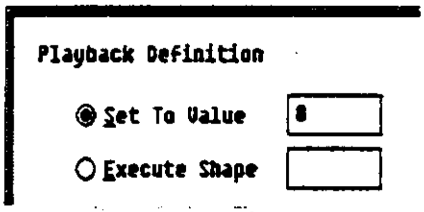
● Replace Number Sign with Value in Expression Playback

○ Replace Number Sign with AuxData 1 in Expression Playback

○ Replace Number Sign with "Which Pass" in Expression Playback

☐ Enclose Expression ☐ Playback

- Type Ritard in the text box. If you want to set the font for your new expression, click Set Font. You might choose Times-Roman italic or Helvetica italic. Click OK when you're done.
- Click Playback. The Playback Definition dialog box appears.
- Click Tempo. You've just told Finale that the expression you're designing is going to govern the playback tempo. However, the Set To Value option won't work in this case, because a ritard changes the tempo *over time.* Therefore, you'll need to create an Executable Shape.

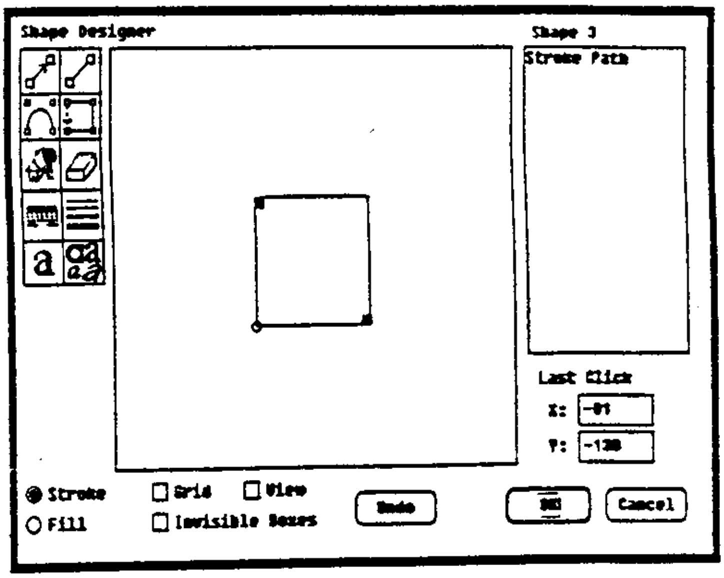


Playback Definition

● Set To Value 8

○ Execute Shape

- Click the words Execute Shape. A selection box appears. If you had already created Executable Shapes, they would be displayed here. For the moment the dialog box is empty, because no Executable Shapes have been created in this file.
- Click Create. The Executable Shape Designer appears. You'll return to this box in a moment.
- Click *Shape ID*. Another selection box appears. This too is empty, although it normally displays any raw shapes you've created in the file—shapes that haven't yet been turned into *Executable* Shapes. You're going to learn to create your own shapes.
- Click Create. You arrive at Finale's Shape Designer. In this mini-graphics environment you can design lines, shapes, and symbols to add to your score. Glissando marks, harp pedal diagrams, and electronic music symbols are some examples. The Shape Designer generates actual PostScript code, meaning that anything you draw will print cleanly and smoothly on a PostScript printer (such as a laser printer), though the computer's relatively low-resolution screen may not represent it as clearly.



Shape Designer — Shape 3

Stroke Path

Last Click X: -81 Y: -128

● Stroke ○ Fill ☐ Grid ☐ View ☐ Invisible Boxes

Your goal is to draw a simple line governing the tempo change of the ritard. There's really only one trick to using the Shape Designer: tell Finale where a line will end *before you draw it.*

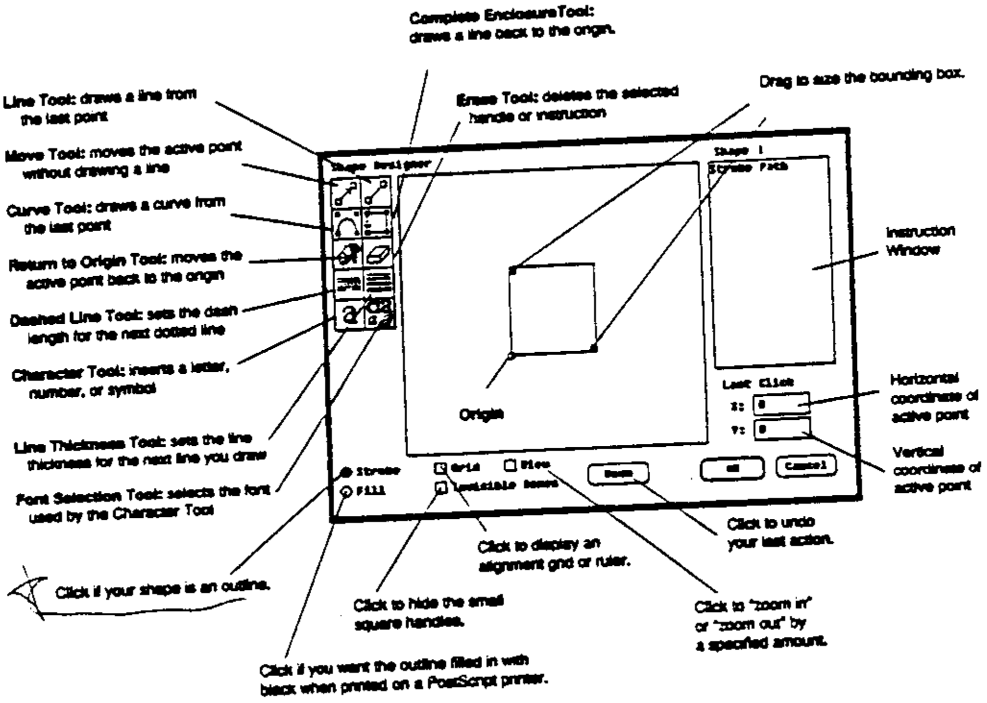
To help you draw the line, turn on the alignment grid.

- Click Grid. A dialog box appears, in which you can specify the kind of grid you want displayed. This grid—resembling a piece of graph paper—doesn't print out or show up in the score, of course. Nor is there a "snap to grid" option—it's only for visual reference.
- In the "Lines every __ EVPUs" box, enter 36. Click Show Grid. You're back in the Shape Designer, and Finale displays gridlines every 36 EVPUs. (An EVPU, you'll remember, is Finale's very fine measuring unit. There are 288 EVPUs to an inch.)

  As it happens, 36 EVPUs is a special number in the design of Executable Shapes. When the vertical gridlines are 36 EVPUs (1/8 inch) apart, each one represents *an eighth-note duration.*

This is the key to designing an Executable Shape that affects the right amount of music. If you want your ritard to last only for a quarter note, it would be *two gridlines* long (¹/₄ inch). If it's to affect a half note, it would stretch across four gridlines (¹/₂ inch). In this example, you're creating a ritard that lasts for an entire 4/4 measure. Therefore, the horizontal dimension of your shape should be eight gridlines across.

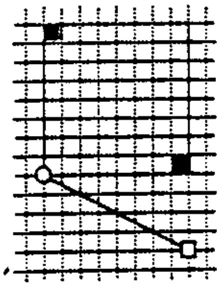
Furthermore, it turns out that each *horizontal gridline* your shape crosses as it travels up or down represents one *unit*. And what's a unit? It depends on the playback parameter this shape is to govern. For example, if this Executable Shape affects the transposition of the affected notes, a unit is a half step. If the shape affects key velocity, a unit is one degree of MIDI key velocity (where zero is silence and 127 is very loud). And in the case of your ritard, one unit is one beat per minute. (You may already realize that you won't be able to draw a very perceptible tempo drop if your shape needs to cross one gridline for *each* one-beat-per-minute drop in tempo. Fear not. In a moment, you'll learn how to multiply the value of these lines so that each represents a much greater drop in tempo.)


Complete Enclosure Tool: draws a line back to the origin.
Line Tool: draws a line from the last point
Erase Tool: deletes the selected handle or instruction
Drag to size the bounding box.
Move Tool: moves the active point without drawing a line
Curve Tool: draws a curve from the last point
Return to Origin Tool: moves the active point back to the origin
Dashed Line Tool: sets the dash length for the next dotted line
Character Tool: inserts a letter, number, or symbol
Line Thickness Tool: sets the line thickness for the next line you draw
Font Selection Tool: selects the font used by the Character Tool
Click if your shape is an outline.
Shape Designer
Shape 1
Stroke Path
Instruction Window
Origin
Last Click
X:
Y:
Horizontal coordinate of active point
Vertical coordinate of active point
Stroke
Fill
Grid
View
Invisible Boxes
OK
Cancel
Click to undo your last action.
Click to display an alignment grid or ruler.
Click to hide the small square handles.
Click to "zoom in" or "zoom out" by a specified amount.
Click if you want the outline filled in with black when printed on a PostScript printer.

The first line you draw always begins at the *origin* (the small, white, round handle). Remember, you specify the endpoint of the line *before* you draw it.

- Locate the point on the grid that's eight gridlines to the right and four gridlines down from the origin. Click there. Notice that the numbers in the X and Y boxes change. These numbers are like plane geometry coordinates, measured in EVPUs (288 per inch). Instead of clicking to specify a point in the Shape Designer, you can also enter numbers directly in these boxes. To draw a diagonal line that slants one inch up and to the right from the origin, for example, you would type 288 into the X box (one inch to the right), and 288 into the Y box (one inch up). If you prefer to specify the line's endpoint by clicking, don't be overly concerned about the accuracy of your click—once the line is drawn, you can drag its handle to reposition it.

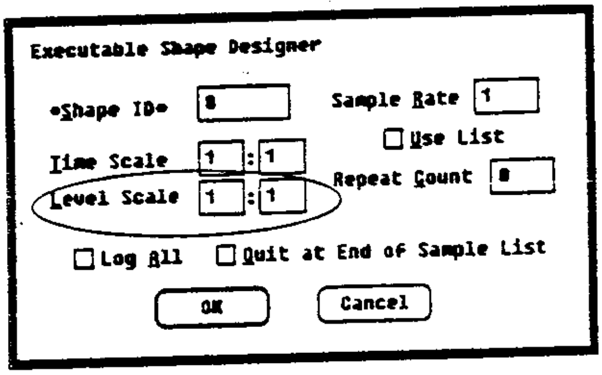
- **Click the Line Tool ⬈.** The Line Tool is the first tool in the right column. When you click it, Finale draws a line to the point you clicked from the point you last clicked—in this case, the origin.



As a final step, you'll adjust the bounding box (the dotted rectangle with gray square handles in the corners).

- **Drag the gray handles of the bounding box so that it neatly encloses the shape you've created.** The shape of this bounding box relative to the shape inside it governs the way the new shape will appear in Finale's Shape Selection dialog boxes—like the one you'll see in the next step.
- **Press Enter twice.** You return to the Executable Shape Designer, where you can tell Finale how to interpret your shape. For example, remember that the shape you just drew only dropped by *four* gridlines. Unless you tell Finale otherwise, it assumes you therefore intend to decrease the playback tempo by *four* beats per minute over the course of the Executable Shape—from 120 to 116 beats per minute during a measure of 4/4, for example.

  You probably wouldn't even be able to perceive such a ritard. Fortunately, this dialog box lets you vastly increase the amount of rallentando by entering new numbers in the *Level Scale* boxes.



Executable Shape Designer

•Shape ID• 8

Sample Rate 1

☐ Use List

Time Scale 1 : 1

Repeat Count 8

Level Scale 1 : 1

☐ Log All ☐ Quit at End of Sample List

- **Type 20 in the first Level Scale text box.** Finale *multiplies* the playback effect of your shape by the numbers in the Level Scale boxes. Because the Level scale is now a ratio of 20:1, each gridline crossed by your Executable Shape now represents a drop of *20* beats per minute (instead of one). Since the shape crossed four horizontal gridlines, the tempo will drop by 80 beats per minute—a much more satisfying ritard.

  At this point, you could also specify a different Time Scale, which would determine *how long* the executable shape will last. When you designed the shape, it crossed eight gridlines (eighth notes)—a duration of one whole note. Finale multiplies that duration by the ratio expressed by the Time Scale boxes. A Time Scale of 1:2 would create a rallentando lasting half as long (a half note), and 3:1 would last three times as long. (Each would still slow the tempo by the same 80-beats-per-minute amount over the course of the Executable Shape, however.)

- Click OK or Select in each dialog box. You return to the score, where the *ritard* marking appears. Listen to the ritard and see if you like how it sounds.
- Play back the score from measure 13. If the music doesn't slow down enough, you could increase the Level Scale of the ritard. If the ritard effect lasts too long, you could decrease the Time Scale. (The effect of the ritard varies according to the current tempo.)

WHEN YOU'RE READY TO CONTINUE

If you want, you can save your ritard expression in a library of its own: choose Make Library from the File menu. Click Text Expressions, click Make, give the library a title (such as RIT.LIB), and click Make.

Finally, close your TUT07B.MUS file, saving it if you want.

FOR MORE INFORMATION

Some of the entries in the *Finale Encyclopedia* contain mini-tutorials pertaining to topics you've just covered. See, for example:

Crescendo/Decrescendo
Dynamics
Expressions: Score Expressions
Expressions: Staff Expressions
Key velocity
MIDI channels
Rallentando
Real-time recording (Transcription Tool)—To add tracks

ADVANCED NOTATION TOPICS

In this section you'll learn to use some of Finale's more advanced scoring and notation tools.

THE SPECIAL TOOLS TOOL

The Special Tools Tool provides you with fine-tuning control over spacing, beaming, ties, dots, and stems.

- **Open the file named TUT08.MUS.**
- **Click the Special Tools Tool.**
- **Click the first measure, middle staff.** The Special Tools window opens. On the left side, there are 14 tool icons, each of which controls some aspect of the music.

Note Position Tool moves a note horizontally	**Notehead Tool** moves (or changes shape of a notehead)
Accidental Tool moves an accidental horizontally	**Stem Length Tool** lengthens or shortens a stem
Freeze Stems Tool freezes a stem up or down	**Double Split Stem Tool** adds second stem or "splits" a chord's stem
Reverse Stem Tool moves a stem to the "wrong" side of note	**Custom Stem Tool** lets you create a stem of any shape
Beam Angle Tool changes beam height and angle	**Secondary Beam Break Tool** breaks sixteenth note (and other) beams
Beam Extension Tool extends a beam (even across barlines)	**Secondary Beam Angle Tool** changes the angle of secondary beams
Tie Tool changes the length and arc	**Dot Tool** moves a dot up, down, left, or right

Let's experiment.

- **Click the Note Position Tool, if it's not already selected.**
- **Drag any note's handle left or right.** You can move any note, chord, or rest horizontally with this tool. (You can also drag notes left or right when you're using the Speedy Note Entry Tool.)

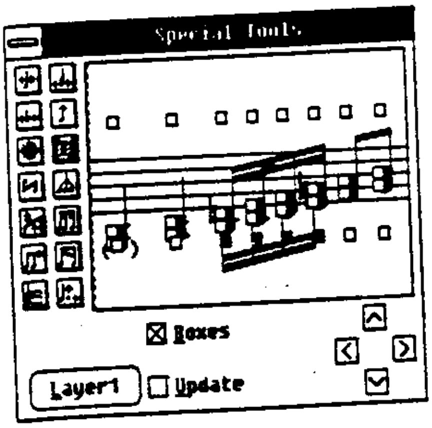
  Note that you're not actually moving the beat—notes that fall on this beat in other staves stay where they are. To move the beat—and the notes in all staves that fall on it—you should use the Measure Attributes Tool. (See the section called "Beat charts" later in this tutorial.) The Note Position Tool simply moves a note horizontally, in one measure of one staff, without affecting its playback.
- **Click the Notehead Tool.** Every notehead in the window sprouts a handle.
- **Drag any handle left or right.** Because the Notehead Tool lets you move individual noteheads, you could use it to rearrange the notehead configuration of a cluster chord.

  You can also change a notehead's appearance with the Notehead Tool:
- **Shift-click a note's handle.** A palette of every possible symbol in Petrucci appears. You can select any shape in this palette, and it will *replace* the normal oval notehead of the note you clicked. Using this technique, you can create X noteheads, diamond noteheads, triangle noteheads, or any other special notehead.
- **Click the X (top row, fourth from right) and click OK.** The notehead has been replaced by the X, although it's obscured by its handle.
- **Click Boxes.** By turning off the Boxes option, you make the handles invisible. Now you can see the new notehead. (When Boxes isn't selected, you can still use the Special Tools: just click where a handle *would* be if it were visible.)

Note that this technique is best for *occasional* notehead shape changes. If you plan to create a rhythm part in which *most* of the noteheads are Xs or slashes, use the Float Note Shapes feature (see the *Finale Encyclopedia* under "Note shapes"). You can also tell Finale where you want the stem to attach to one of these nonstandard noteheads (see "Stem Connections dialog box" in *Finale Reference*)

Let's try some other experiments.

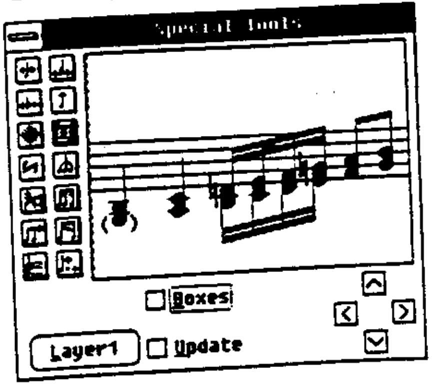
- **Click Boxes again.** The handles reappear.
- **Click the Accidental Tool** ⊟. Every accidental in the measure now has a handle. Experiment with dragging these handles—you can slide any accidental horizontally. This would be useful if you wanted to rearrange the accidentals on a cluster chord, for example.
- **Click the Stem Length Tool** ⊡. Any note with an unbeamed stem sprouts a handle, which you can drag up or down to change the stem's length. Try lengthening the stem of the second quarter note in the measure.
- **Click the Freeze Stems Tool** ▣. A handle appears above and below every note in the measure. A click on any handle flips the stem in its direction. Click the handle again to restore the note to "floating" status. (Note that you can also make stems flip as you're editing with the Speedy Note Entry Tool. Position the insertion bar on a note and press the L key to flip its stem up, Shift-L to flip it down, and CTRL-L to restore the stem to "floating" status.)
- **Click the Double/Split Stem Tool** ▥. When you click this tool, a handle appears on every notehead in the measure, another appears above the staff, and another below. Click the lower handle of a note or chord to create *double stemming*, like this:



Try it now:

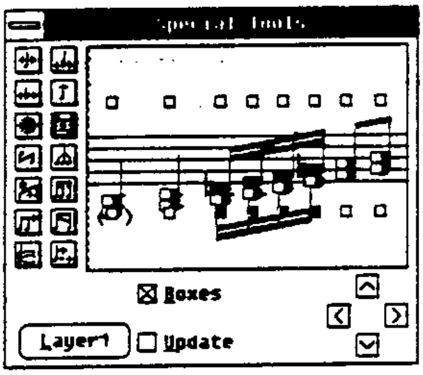
- **Click the lower handle of each of the sixteenth notes.** The new, second stem always points in the opposite direction from the original stem, no matter which handle (top or bottom) you clicked.

The *note handles* provide an additional feature. They can produce *split stemming* within a chord, giving the effect of a separate inner voice, like this:

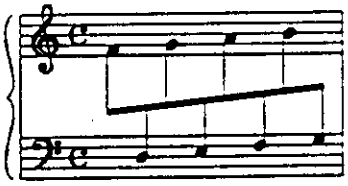


There are two steps to creating this effect: First, click the bottom stem to let Finale know you want to create split stemming. Then click the handle of each note you want to be a part of the *upper stem only.*

- Click the upper notehead handle of each sixteenth-note chord. Click Boxes to hide the handles for a moment. You can see that you've made the sixteenth notes appear to be stemmed separately. Click Boxes again to restore the handles.



You may not use the next two tools as frequently, but it's a good idea to keep their functions in mind. Feel free to experiment as you read. The Reverse Stem Tool simply flips the stem from one side of its notehead to the other, useful in conjunction with cross-staff notes:



The Custom Stem Tool provides great flexibility in special beaming cases—for example, splayed beaming, where three mini-stems connect the notes of a C♭, C♮, C♯ chord cluster. That's only one function of the Custom Stem Tool. If you click a note's handle, you can enter the Shape Designer (which you looked at in the last tutorial) in which you can draw any shape and use it as a stem. See "Stems" in the *Finale Encyclopedia* for full instructions in the use of these tools.

- Click the Beam Angle Tool. Any notes that are beamed together sprout two handles, one at each end of the beam. The right handle changes the *beam angle.* As you move it up and down, the left handle remains stationary. The left handle changes the *beam height.* As you move it up or down, the right handle moves in tandem, and the beam angle doesn't change.

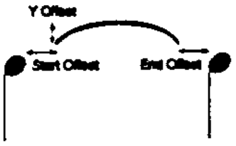
  Try it now: drag the right and left handles of the beam on the pair of eighth notes at the end of the measure.

  The next three tools provide additional control over beaming. For example, the Secondary Beam Break Tool lets you specify places where you'd like *secondary beams* (sixteenths, thirty-seconds, and so on) to break. The Beam Extension Tool simply extends any beam past its last note, which can be useful for beaming across the barline. And there's also a Secondary Beam Angle Tool which allows you to give sixteenth-note (and lower) beams different slants. This last tool is useful for creating the modern *feathered beaming* notation of accelerandi and ritards, where several secondary beams converge. For a more complete discussion of these tools, see "Special Tools window" in *Finale Reference.*

- Click the right arrow in the Special Tools window to move to the next measure in the same staff.

- Click the Tie Tool, then click the tie's left handle. The Tie Alterations box appears. Float Tie is the usual setting. It means that the tie will arc over or under depending on the stem directions of the notes it's connecting. Freeze Tie Over means the tie will arc over the notes (usually over stems-down notes), and Freeze Tie Under means the tie will arc under the notes (usually under stems-up notes).

  You'll also find that you can determine the tie's start and end points, as well as the height of its arc, by typing EVPU values (288 per inch) into the Offset boxes. Start, End and Y Offset are defined as follows:



  The End Offset is a negative number whose value approaches zero as the tie endpoint moves to the right. As elsewhere in Finale, positive numbers indicate measurements made upward or to the right, negative numbers indicate measurements made down or to the left.

  Just as an experiment, modify the tie whose handle you clicked:

- Enter 60 in the Y Offset box. Click OK (or press Enter). Note the new tie arc height.
- Click the Dot Tool. Click the first dotted note's handle. A dialog box appears, where you can enter EVPU values (288 per inch) for the precise positioning of this dot. (This tool is best for making changes to *specific* dotted notes. You can set the horizontal dot positioning globally, too. See "Dotted notes" in the *Finale Encyclopedia.*)

  The X Offset is the horizontal distance between the dot and its default placement (a higher value means farther to the right), the Y Offset sets the vertical location of the dot relative to its default placement (a higher value means upward), and the Inter-dot Spacing sets the distance between the dots of a note with several dots. For example, if you decide that a dot should be moved down to the next space on the staff, add –24 to the Y Offset.

- Click OK (or press Enter). With any of the Special Tools, there are several other features that may make your work easier. For example, you can slide the entire image of the measure horizontally within the Special Tools window. To do so, drag right or left anywhere in the music display except on a handle.

  Normally, when you're dragging a handle to a new position, you don't actually see its attached note (or beam, or whatever) moving. Instead, you see thin, dotted-line cross-axes that pinpoint the position of the handle. When you let go, the note (or beam, or whatever) then jumps to the new location. If you'd rather see the current position of the object you're dragging at all times, select Update. You'll be able to see the object at every point as you drag it.

  If you don't like what you've done, click the handle of the affected element (to select it), and press Delete. (If a Special Tool brings up a dialog box, click the Delete button.) You can also erase Special Tools modifications on a global basis. Select the desired region with the Mass Mover Tool and choose Erase from the MassEdit menu. Proceeding through the dialog boxes, click Only the Selected Items, then Entries. At this point you can specify the Special Tools alterations you want erased, according to the table below. Finally, click OK, once in each dialog box.

To erase changes made with this tool...	Select this item in the Items to Erase box:
Notehead Tool	Note Head or Percentage Alterations
Accidental Tool	Note Head or Percentage Alterations
Stem Length Tool	Stem and Beam Alterations
Custom Stem Tool	Stem and Beam Alterations
Beam Angle Tool	Stem and Beam Alterations

To erase changes made with this tool...	Select this item in the Items to Erase box:
Secondary Beam Break Tool	Secondary Beam Breaks
Beam Extension Tool	Beam Extensions
Secondary Beam Angle Tool	Stem and Beam Alterations
Tie Tool	Special Alterations
Dot Tool	Special Alterations

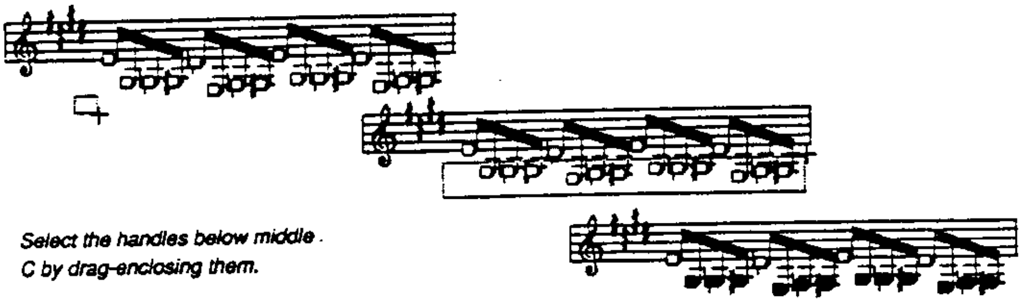
You can remove changes you've made with the Freeze Stems, Double/Split Stem, and Reverse Stem tools using a slightly different method. Select the desired region with the Mass Mover Tool. Instead of choosing Erase from the MassEdit menu, choose Modify Entries. In the dialog box that appears, select "Strip Reverse, Split, Double, and Freeze Stemming". Click OK (or press Enter).

- Exit the Special Tools window by double-clicking the Control-menu box (in the upper-left corner of the window).

The Note Mover Tool: Cross-staff notes

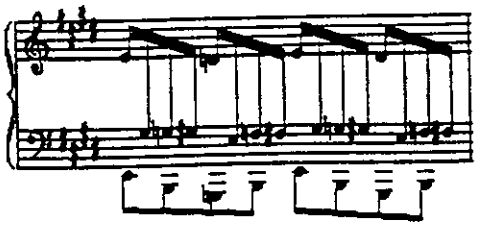
The Note Mover Tool (on the main palette, not in the Special Tools window) moves notes—one by one, or a measure at a time—horizontally or vertically to other measures in the score. It's particularly useful for HyperScribe or Transcription Tool users, because it can be used to correct split point errors, as you'll see in this tutorial. It can also be used for cross-staff beaming. This example assumes that you still have TUT08.MUS open.

- Scroll so that you can see measure 4.
- Click the Note Mover Tool. Click measure 4 of the middle staff. Every note in the measure now has a handle. Note the figure in the treble staff: four sets of sixteenth notes. Suppose that you want the last three notes of each four-note grouping to be *cross-staff* notes—in other words, for the noteheads themselves to be written on the bottom staff.
- Choose Cross Staff from the NoteMover menu. As always with the Note Mover and Mass Mover tools, specify the action from the menu *before* you perform the copy or move.
- Drag the mouse to enclose the notes you want to move, as shown below. You can also select multiple notes by Shift-clicking them. The handles should now be selected.



Select the handles below middle C by drag-enclosing them.

- Drag any selected handle straight down into the bottom staff. As you drag any handle, all selected handles move with it. You don't have to drag the note to any particular pitch on the target staff—you just have to give Finale the general idea by dragging it into the *staff*. When you let go, you'll see that Finale has correctly notated these cross-staff notes.



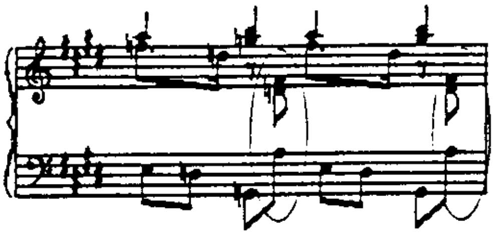
There are some interesting properties of cross-staff notes that you should know about. As far as Finale is concerned, these notes still belong to the staff you took them from. If you click the source measure with the Speedy Note Entry Tool, you can edit them as though they are still on their original staff. They play back with the original staff's MIDI channel and patch settings, too.

If you want to restore the notes to their original staff, click the *original staff* to see the handles appear. Select the cross-staff notes and then press Delete.

CORRECTING SPLIT POINT ERRORS

A related function of the Note Mover Tool is its ability to correct occasional split point errors after you've finished transcribing or HyperScribing a real-time performance. It's a rare piano piece in which the right hand *never* crosses middle C (or whatever split point you've specified). Here's how you can correct measures where it did.

- Scroll to measure 6. In this measure, you'll see some notes in the upper staff that obviously belong to the left hand part.



  Let's restore them to the bass-clef staff. The Note Mover Tool should still be selected.
- **Click measure 6 of the middle staff.** Every note in the measure now has a handle.
- **Choose Delete After Merge from the NoteMover menu.** You want Finale to *delete* the notes from the right-hand part after *merging* them with the left-hand part.
- **Enclose the handles of the left-hand notes above middle C by drag-enclosing them.**
- **Drag any highlighted handle directly downward into the bottom staff.** When you release the mouse button, Finale redraws the music so that the notes you moved are seamlessly integrated with the left hand part.

For details on the other Note Mover menu options, see "Note Mover menu" in *Finale Reference.*

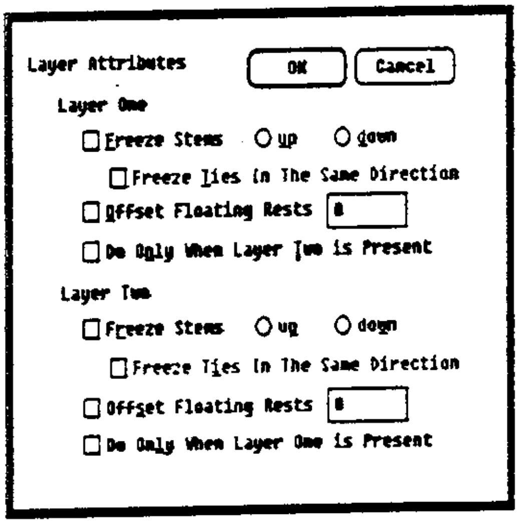
WORKING WITH INNER VOICES: LAYERS

Finale lets you have up to four *voices*—independent lines of music, each with its own stem—per staff. Most of the time, you'll probably need only two—stems up and stems down. You'll find such music especially easy to notate in Finale, because every staff can have two completely independent *layers* of music. You can think of them as clear plastic overlays, because each layer is utterly independent—each can even have its own MIDI channel for playback. You can flip easily from one layer to the other, and even hide the one you're not working on.

If you do need more voices, you'll discover that each *layer* can have two voices of its own, Voice 1 and Voice 2, giving you a total of four to work with. Voice 1/Voice 2 is more complex. Save it for the times when you need three or four voices per staff. (You may want to get acquainted with it, since both HyperScribe and the Transcription Tool transcribe secondary voices as Voice 1 and Voice 2 *in the same layer.*)

This example assumes that TUT08.MUS is still open.

- Choose Layer Attributes from the Edit menu. A dialog box appears, in which you can describe the behavior of each voice.



Layer Attributes [OK] [Cancel]

Layer One

☐ Freeze Stems ○ up ○ down

☐ Freeze Ties In The Same Direction

☐ Offset Floating Rests [0]

☐ Do Only When Layer Two is Present

Layer Two

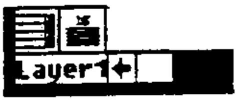
☐ Freeze Stems ○ up ○ down

☐ Freeze Ties In The Same Direction

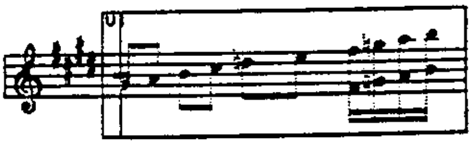
☐ Offset Floating Rests [0]

☐ Do Only When Layer One is Present

- For Layer 1, click Freeze Stems, Up, Freeze Ties in the Same Direction, and Do Only When Layer Two is Present.
- For Layer 2, click Freeze Stems, Down, Freeze Ties in the Same Direction, and Do Only When Layer One is Present. Also click Offset Floating Rests and type –4 into the text box. Don't panic. You've simply told Finale that whenever there are two independent voices, Layer 1's stems should automatically flip up, and Layer 2's stems should flip down. In such cases, ties should flip the "wrong" way to avoid collisions with the other voice. You've also said that when Layer 2 has a rest, it should appear *four lines or spaces lower* (–4) than its usual position (the middle B line). You'll see the effects of your settings in a moment.
- Click OK (or press Enter). Now let's put in the second voice. You want to enter it in Layer 2. At last you'll get to find out what the "Layer1" indicator in the lower left corner of the screen is.
- Click the text "Layer1" in the lower-left corner of the screen. It changes to read "Layer2." Each time you click, you change layers.

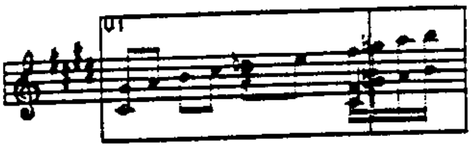


- Scroll to measure 15.
- Click the Speedy Note Entry Tool, click the middle staff, and click measure 15. This measure contains a run with stems in both directions. Note that when you click the measure, the existing Layer 1 notes become *dimmed,* because you've switched to Layer 2.



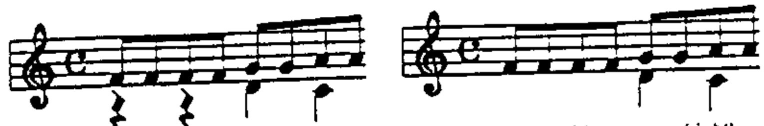
- While playing middle C♯ on your synthesizer, press 6. A half-note C♯ appears. Its stem won't flip the way you specified (down) until you exit the editing frame.
- Press the 5 key (without holding any note down). A quarter rest appears. It waits until you've exited the editing frame before jumping to the position you specified (down four notes).

- **While playing middle C♯, press the 5 key again.**



- **Press Shift-apostrophe (").** The editing frame flips back to Layer 1, and Layer 2 is now dimmed. Keep this shortcut in mind: you can flip from layer to layer from *within* the editing frame.
- **Press 0 (zero) to exit the frame.** The screen is redrawn. You can see that the stems are now properly flipped, and the rest has been moved to the position you specified. When you return to the score, note that the indicator in the corner of the screen still says Layer 2. Finale remembers which layer is currently selected, regardless of the layer you were most recently editing in the Speedy Note editing frame.
- **Click the Layer indicator to select Layer 1.**

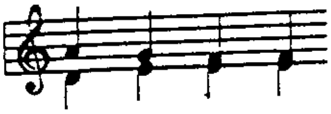
There are two special cases you should be aware of when working with layers. First, there are times when the second voice doesn't begin until the *middle* of a measure (below right). The solution is to fill up the beginning part of the measure with rests (below left):



To create the appearance of a Layer 2 voice that begins in mid-measure (right), first create "placeholder" rests (left). Use the letter O key to hide the rests.

Then, in Speedy Note Entry, position the insertion bar on each rest and press the letter O key. The rest instantly vanishes. Now it's merely a placeholder to align the notes of the second voice. (The O technique works on both notes and rests—it makes either invisible. Press O again to make the entry reappear.)

The second problem you may encounter is when the notes in each layer are an interval of *a second apart*, like this:



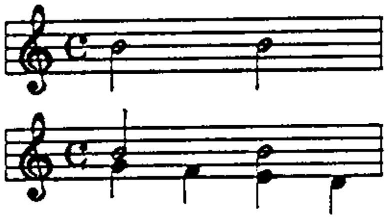
You need to offset one of them to avoid the collision. The solution is to drag either note to one side when you're editing with the Speedy Note Entry Tool. (You can drag notes both vertically and horizontally when you're editing. If you want to make sure you don't inadvertently move a note sideways when you want to drag it up or down—or vice versa—press the Shift key as you drag. Finale will constrain the cursor to perfectly horizontal or perfectly vertical movements.)

Working with inner voices: Voice 1/Voice 2

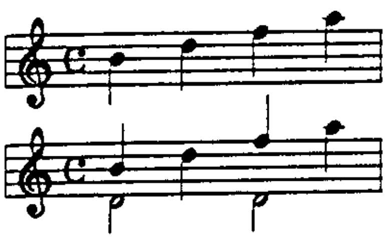
You can also have two *voices* within each layer, as you'll see when you use HyperScribe or the Transcription Tool (if you haven't specified No Voice Two).

There are two important concepts about Voice 1/Voice 2 you should understand. First, Voice 1 isn't "usually" higher, and it's not "usually" stems-up (in contrast with the Layer 1/ Layer 2 mechanism, where one layer's music *will* usually be on top). The definition of Voice 1 is *the voice you entered first*, regardless of register.

The second concept is that of *domain.* You may wonder why note stems don't always seem to flip in the correct directions. The answer is that Finale correctly flips Voice 2 stems launched *within the domain* of a Voice 1 note, as shown here:



In this example, two half notes were entered in Voice 1 (top). The second voice was "launched" from the first half note—but because all four Voice 2 notes were launched from the first Voice 1 half note, the stem of the second Voice 1 half note didn't flip upward. (Had the third Voice 2 note been launched from the second Voice 1 half note instead, all stems would have been appropriately flipped.)

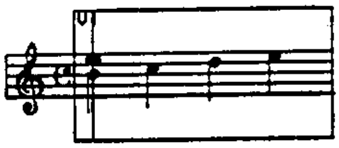


In this example, the half notes in Voice 2 were launched "properly"—one from the first quarter note of Voice 1, and one from the third quarter note. However, because the longer values (half notes) weren't entered first, every other stem in Voice 1 failed to flip up. You can solve both of these stemming problems by pressing the L key (to flip a stem up) or Shift-L (to flip a stem down).

This "domain" system means that a second voice can materialize at any point during the measure—not just at the beginning. For example, by "launching" the second voice from the third beat of the Voice 1 melody, the second voice only appears halfway through a 4/4 measure. You "launch" a second voice from a Voice 1 note by pressing the apostrophe key without pressing Shift.

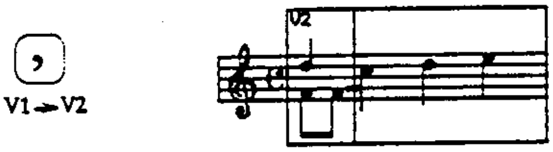
You have two options for ensuring proper stem directions. First, when entering or editing notes in V1/V2 (as Voice 1 and Voice 2 are called in the Speedy Note Entry Tool), you can always take care to "launch" V2 from within the domain of a V1 note.* This may involve some backtracking, as shown in the following sequence:

A



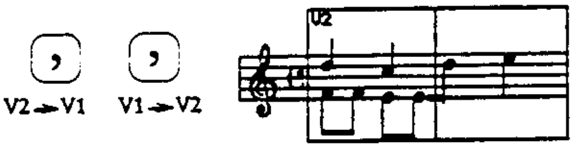
To ensure that all stems automatically flip in the correct direction, "launch" each V2 note from the domain of a V1 note, as shown here. First, enter the notes with the longer values as V1...

B



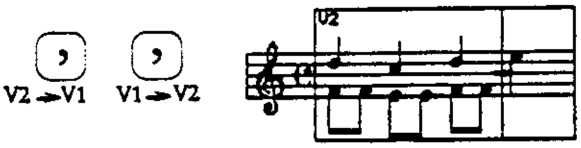
...then press the apostrophe to shift to V2, and enter the V2 notes for the first beat.

C



Now press the apostrophe twice—once to flip to the second quarter note of V1, and again to launch V2 from it. Enter the second pair of V2 notes.

D



Press apostrophe twice. Enter the third beat.

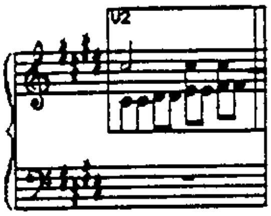
The simpler solution, is to use the Speedy Note Entry Tool's stem-flipping key—the letter L—to correct stem directions as you go.

---

* Furthermore, you can't easily beam Voice 2 notes together that have been "launched" from different Voice 1 notes. It's possible to do so—see "Frame dialog box" in Finale Reference—but the process is somewhat technical.

Now that you understand the theory, let's get to some practice.

- Click the Speedy Note Entry Tool and click measure 16, any staff. When using V1/V2, it's usually best to enter the longer values first.
- While playing C♯ an octave above middle C on your synthesizer, press 6, 5, 5. A half note and two quarter notes appear. As you can see by the "V1" indicator in the editing frame, you're creating Voice 1 notes. Now return to the beginning of the measure and add the second voice.
- Press the left arrow key until the insertion bar is on the first note.
- Press the apostrophe (') key. The indicator now says "V2," and the insertion bar is offset slightly from the first beat, to remind you that you're now editing a second voice.
- While playing middle C♯, press the 4 key twice. Play D♯, press 4 twice. Play E, press 4 twice. Play F♯, press 4 twice. You've just added eighth notes in Voice 2, going up the scale in pairs. The measure should look like this:



Note that the stems aren't correctly flipped—the first V1 half note flipped correctly, but the remaining quarter notes didn't. Let's jump back to V1 mode and flip the stems manually.

- Press the apostrophe (') key. The indicator now says "V1".
- Position the insertion bar on the first V1 quarter note and press the L key. Pressing the L key flips any stem up, pressing Shift-L flips any stem down. (If this or any other Speedy Note Entry command doesn't work, check to make sure that your Caps Lock key isn't engaged.)
- Press the right arrow key to advance to the final quarter note. Press L. Now you've corrected both stems in V1. Since the V2 stems were launched within the domain of a V1 note, you don't have to edit them: they all flipped downward automatically.
- Press the zero key to exit the editing frame.

As long as you keep an eye on the V1/V2 indicator in the editing frame, you'll always know which voice you're editing. Knowing which voice you're editing is especially important when you're trying to *delete* a note from one voice.

Note that in passages where there are notes in both voices, rests are "draggable". You can drag a rest up or down to avoid collisions with notes in the other voice. When only one voice is present, rests center themselves on the staff, although you *can* move them—see "Rests (Speedy Note Entry)" in the *Finale Encyclopedia*.

There's a final, crucial aspect of V1/V2, which has to do with positioning expression markings and resizing notes:

The Shift key accesses Voice 2. Let's take expression markings as an example. If you have a Staff or Note Expression—say, an accent mark—whose handle simply will not appear when you click on its note, chances are it's attached to a V2 note. You need to *Shift*-click the note to see the handle. (If you had assigned an accent mark to a V2 note, you would have had to *Shift*-click it with the Note Expression Tool to begin with.) Or suppose you want to reduce or enlarge a Voice 2 note using the Reduce/Enlarge Tool. To resize a Voice 1 note, you simply click it. If the note is in Voice 2, you *Shift*-click it.

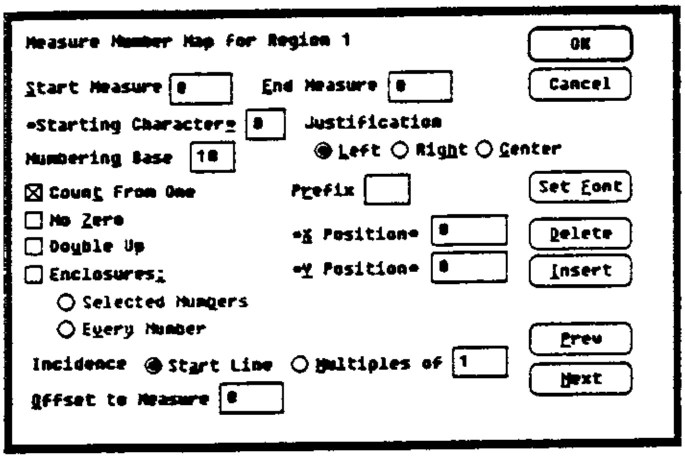
Once you've become familiar with V1/V2, remember that Voice 1 and Voice 2 are present in *each* of the two transparent layers on each staff. By combining the two mechanisms, you can produce up to four independent voices.

MEASURE NUMBERS

In the real world, measures are sometimes numbered A, B, C, and D. Sometimes people cut sections out of dance music, resulting in a measure numbering sequence like 52, 53, 70. Other times music is inserted, and the bars are called 33a, 33b, 33c. For these situations, Finale can create several different numbering systems, one for each region of a piece.

In this example, you'll simply number every measure sequentially. You'll be needing the Measure Number Tool, so scroll the tool palette upward if necessary (by Shift-dragging it).

- Click the Measure Number Tool. The Measure Number Map dialog box appears.



Measure Number Map for Region 1

Start Measure 0 End Measure 0

•Starting Characters 0 Justification

Numbering Base 10 ● Left ○ Right ○ Center

☒ Count From One Prefix

☐ No Zero

☐ Double Up •X Position• 0

☐ Enclosures: •Y Position• 0

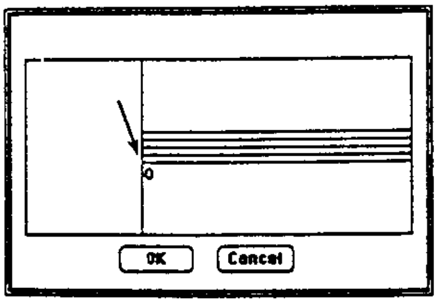
○ Selected Numbers

○ Every Number

Incidence ● Start Line ○ Multiples of 1

Offset to Measure 0

- Type 1 in the Start Measure box, then tab to the End Measure box and type 1000. There aren't anywhere near 1000 measures in this file, but you typed a very high number to make sure all the measures you *do* have are included in this region.
- Click Set Font and choose Helvetica (Helv) 9 point. Click OK to exit the Font dialog box. You can set the font and size independently for each region.
- Click •X Position•. A diagram appears, letting you set the position of the number relative to the beginning of the measure.
- Drag the number into place just below and to the right of the barline. You don't have to drag the 0 itself. You can drag anywhere within the display.



- Click OK. All that remains is to tell Finale how often you want the numbers to appear. If you select Start Line, numbers will only appear on measures that begin new systems. For the moment, let's number every measure.

- To the right of the word Incidence, click Multiples of (1). Click OK (or press Enter). You've now numbered all the measures, but they appear under every staff. In a piano-and-solo system like this one, the score would look best if they only appeared beneath the system.
- Click the Staff Attributes Tool ⊟, and click the top staff's handle. The Staff Attributes dialog box for this staff appears.
- **In the Don't Draw section, click Measure Numbers. Click Next (to advance to the middle staff) and click Measure Numbers again. Click OK (or press Enter).** You've just told Finale not to draw the measure numbers under either of the first two staves. They appear only under the bottom staff.

If you want to add another region, or if you want to change some aspects of the numbering for this one, click the Measure Number Tool again. You'll be able to make further changes in the dialog box. The Next and Previous buttons move you from one region's settings to another. The Insert and Delete buttons create and remove region definitions.

There are other useful options in this box. For details, see "Measure Number Map dialog box" in *Finale Reference.*

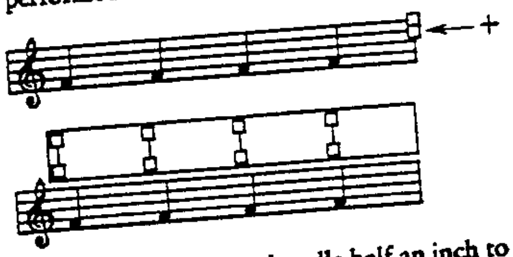
BEAT CHARTS

In Tutorial 4, you learned how to use a Mass Mover Metatool to neatly space music, lyrics, and accidentals by applying an Allotment Library to the selected music. You'll recall that the procedure was to select the region whose spacing you want to fix, then double-click while pressing the 3 key.

In performing Metatool 3, you unlocked a special feature of every measure affected by it: you gave each measure a *beat chart*. A beat chart is a set of handles, one per beat, which lets you reposition any beat (and the notes that fall on it) in every staff at once.

Because the Mass Mover Metatool 3 operation takes some time, we've done it to this file already. It's important that you understand this process. If you don't remember the purpose of Mass Mover Metatool 3, stop now and review the beginning of Tutorial 4.

- **Click the Measure Attributes Tool ▤.** Each barline in the piece sprouts two stacked handles. You can drag the top one to the right or left to widen or compress the measure. When you click the bottom handle, its beat chart springs into view.
- **Click the bottom handle of measure 2's ending barline.** A beat chart—two rows of square handles—appears above the music. The top row of handles, evenly spaced, show you where the beats would fall if the music were spaced *linearly*—as it was before you performed Metatool 3. The bottom row of handles is yours to play with.



When you click the bottom handle of a barline...

...a beat chart appears. The top row of handles indicates the positions of the beats as they'd fall with linear spacing, and the bottom row of handles allows you to move beat positions by dragging them.

- **Drag the third bottom handle half an inch to the right.** When you're finished, you'll see that you've actually moved the third beat to the right, *in every staff*. If, in an orchestral score, there was a ten-note glissando for the flutes on beat two, you could make room using this technique.
- **Shift-drag the second beat's bottom handle to the left.** Shift-dragging a handle also affects *all handles to its right*.

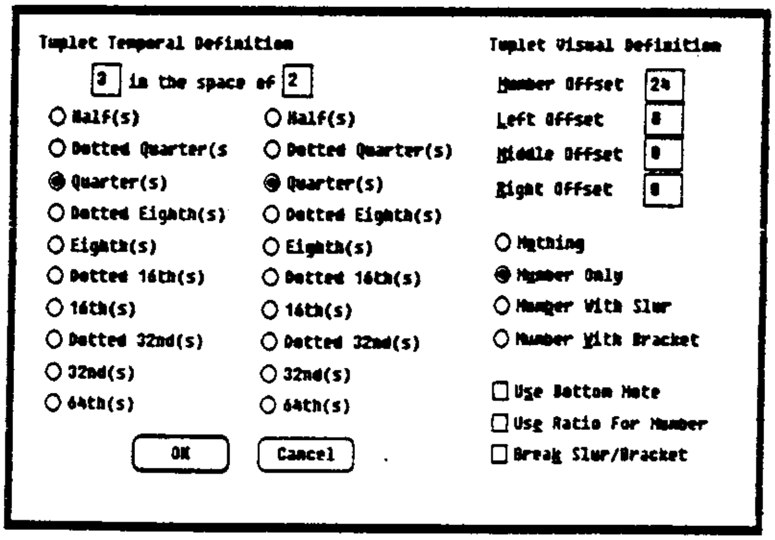
- Position the cursor between the first two top handles. Double-click. A new handle appears. When you double-click between two upper handles, you create a handle that controls the *halfway* point between those two handles. In this case, you've just created a handle that controls the second eighth note of the beat.

Keep the power of these beat charts in mind. In general, let Mass Mover Metatool 3 handle your spacing for you. But when you need to force some extra room into a measure—to make room for a cesura (railroad track) marking or to create a measure of recitative—beat charts will do the trick.

TUPLETS

You haven't explored Finale's tuplet (triplets, quintuplets, and so on) features yet. Scroll to measure 10—which is empty—and give the Tuplet Tool a try.

- Click the Speedy Note Entry Tool, and click measure 10 in the top staff. You're going to enter some music, so be sure your MIDI gear is hooked up and ready to play.
- While playing any synthesizer key, press the 5 key four times. You've just entered four quarter notes on the same pitch.
- Press the right bracket key ( ]) to advance to the next measure.
- Press CTRL-3. You do this *before* entering a tuplet. Finale puts a tiny "3" in the upper right of the editing frame, letting you know it's expecting the next three notes to constitute a triplet.
- While playing any synthesizer key, press the 6 key three times. As soon as the third note appears, Finale centers the "3" over the triplet.
- Press the 0 (zero) key to redraw the screen. In measure 10, you have four quarter notes. In measure 11, you have a half note triplet. You can modify each with the Tuplet Tool.
- Click the Tuplet Tool. Click the first quarter note in measure 10. The Tuplet Definition dialog box appears.



Tuplet Temporal Definition

3 in the space of 2

○ Half(s)	○ Half(s)
○ Dotted Quarter(s	○ Dotted Quarter(s)
● Quarter(s)	● Quarter(s)
○ Dotted Eighth(s)	○ Dotted Eighth(s)
○ Eighth(s)	○ Eighth(s)
○ Dotted 16th(s)	○ Dotted 16th(s)
○ 16th(s)	○ 16th(s)
○ Dotted 32nd(s)	○ Dotted 32nd(s)
○ 32nd(s)	○ 32nd(s)
○ 64th(s)	○ 64th(s)

Tuplet Visual Definition

Number Offset 24

Left Offset 0

Middle Offset 0

Right Offset 0

○ Nothing

● Number Only

○ Number With Slur

○ Number With Bracket

☐ Use Bottom Note

☐ Use Ratio For Number

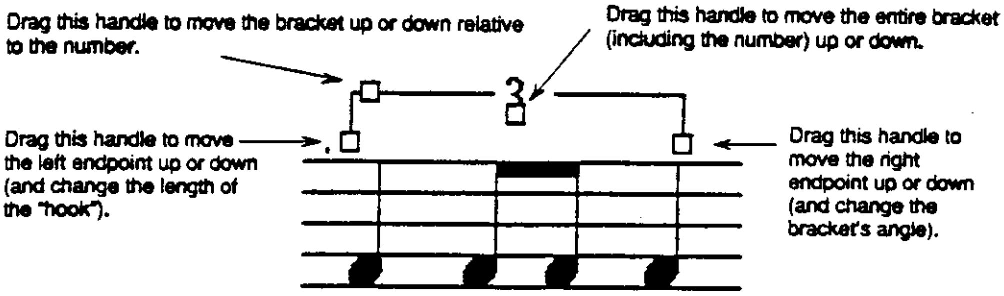
☐ Break Slur/Bracket

On the left side of the screen there are various options for defining the *temporal* definition of the tuplet. Using these buttons and boxes you establish the ratio for the tuplet. Look at the two text boxes at the top of the dialog box. As you can see, Finale guessed that you wanted to fit three quarter notes in the time of two—precisely the definition of a quarter-note triplet.

On the right side of the screen you can specify how the tuplet should look in the score. Should it have a slur or a bracket? Should it be a ratio?

- Click Number With Bracket and Break Slur/Bracket. Click OK (or press Enter). You've just turned ordinary quarter notes into a tuplet by clicking the first of them with the Tuplet Tool.

  Note that the "bracket" you just specified doesn't look like much when you return to the score. It appears to be a flat broken line. If you click the first note of the tuplet, four handles appear. These handles control the various elements of the bracket:

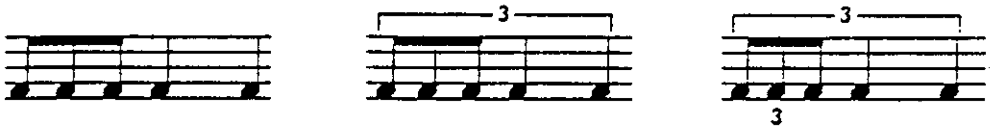

Drag this handle to move the bracket up or down relative to the number.
Drag this handle to move the entire bracket (including the number) up or down.
3
Drag this handle to move the left endpoint up or down (and change the length of the "hook").
Drag this handle to move the right endpoint up or down (and change the bracket's angle).

If the bracket is to be essentially horizontal, adjusting these handles is a simple, two-step process:

- Drag the second handle upward until the bracket line is halfway up the digit 3. This second handle controls the position of the bracket relative to the number.
- Drag the *third* handle (on the number 3) upward or downward until the bracket is an appropriate distance from the notes. This third handle controls the position of the entire bracket/number configuration.

  You can also *modify* the tuplet you made in Measure 11.
- Click the first note of the tuplet in measure 11. The four tuplet position handles appear, even though there's no bracket.
- Double-click the first handle. Once again, the Tuplet Temporal Definition box appears.
- Click Number With Bracket and Break Slur/Bracket. Click OK (or press Enter). You just changed the visual definition of an existing tuplet. If you want, adjust its bracket as you did with the quarter note triplet.

  You can create tuplets within tuplets, too. In general, it doesn't matter whether you begin by creating the inner or outer tuplet, but when an inner tuplet begins on the same beat as an outer tuplet, create the *outer* one first, as shown here:



To create a nested tuplet, start by entering the notes as non-tuplet values (left). Use the Tuplet Tool to create the outer tuplet first (middle). Finally, use the Tuplet Tool again to define the inner tuplet (right). Adjust the brackets as necessary.

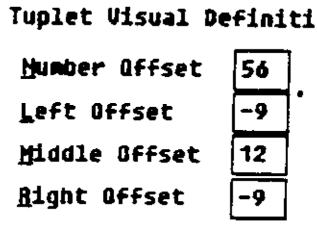
If you find yourself defining the same kind of tuplet over and over again in a piece, define it as a Tuplet Tool Metatool. Here's an example:

- Click the first note of the measure 11 tuplet. The tuplet handles appear.
- Click any handle and press Delete. This is how you turn tuplet-defined notes back into normal notes.

  Now let's define a Tuplet Metatool. Remember, you can create eight predefined tuplets, complete with brackets and temporal information. Start by programming a basic, straight-bracket half note triplet.
- While pressing CTRL, press the 1 key. The Tuplet Temporal Definition box appears. First you need to describe the temporal value of the tuplet you want this Metatool to produce.

- Type 3 in the first text box. Tab to the second box and type 2. Click Half(s) in both columns. You've just specified that this Metatool will create a tuplet that fits three half notes in the time of two.
- Click Number With Bracket and Break Slur/Bracket.

  To create an ordinary, straight bracket, you can type the bracket handle positions directly into the boxes.
- Type numbers into the text boxes as shown:


Tuplet Visual Definition

Number Offset 56

Left Offset -9

Middle Offset 12

Right Offset -9

- Click OK (or press Enter). When you return to the score, Finale knows what to do when you press the 1 key and click on a note because you've defined Tuplet Metatool 1.
- While pressing the 1 key, click the first note in measure 11. Finale pops the fully formed tuplet bracket into the score. Now you can move quickly through a score, inserting tuplet definitions on any notes that need them without having to enter a dialog box, confident that they'll look right on the first try.

  If you're creating a piece with many tuplets, you'll want to predefine their *visual definition*. With this shortcut, you'll never have to click Number With Bracket again when you create a new tuplet, whether with HyperScribe, the Transcription Tool, or the Speedy Note Entry Tool. You can specify a default tuplet appearance before you ever enter the tuplets themselves. Note that the following shortcut is not the same as creating a Metatool, which turns normal notes into tuplets *after* they've been entered into the score. By using the following technique, you can specify what the tuplets will look like when they first appear.
- CTRL-click the Tuplet Tool . A special dialog box appears. It resembles the *right half* of the Tuplet Definition dialog box.
- Click Number With Bracket and Break Slur/Bracket.
- Type numbers into the text boxes to define the default tuplet appearance. If you want a straightforward horizontal bracket, you might try the Tuplet Visual Definition numbers you typed in the last example.
- Click OK (or press Enter). That's all there is to it. From now on, any new tuplet you create will pop into the score with a horizontal bracket already in place. Try it! (Remember: to enter a triplet with the Speedy Note Entry Tool, press CTRL-3 just before you enter the notes themselves.)

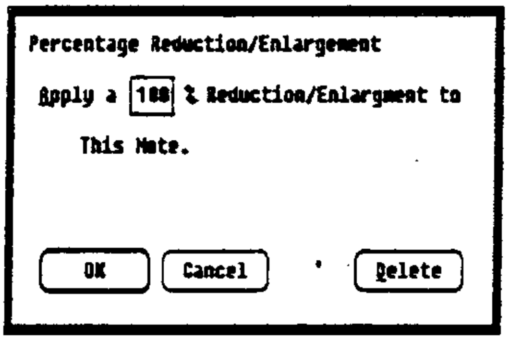
REDUCE/ENLARGE TOOL

You've already experimented with the View at commands in the View menu. These commands allow you to "zoom in" and "zoom out" from your file, magnifying or reducing your view of it. During the entire process, the actual size of the music—the *printed* image—remains precisely the same.

The Reduce/Enlarge Tool can resize the music itself (again, independent of your chosen view percentage). If you have a laser printer, you can choose any size for the music. it will always print smoothly and clearly. If you print on a dot-matrix printer, you'll find that reduced music doesn't print as smoothly as it does at full (or 50%) size—it becomes slightly "jagged," and the spacing of staff lines may not be perfectly even.

For this example, use the file named TUT08.MUS that you've been working on to this point.

- Click the Reduce/Enlarge Tool %. The amount of music to be resized depends on where you click the window.
- Click a notehead. The Percentage Reduction/Enlargement dialog box appears. The limits of the Reduce/Enlarge Tool are 10% to 999%.



Percentage Reduction/Enlargement

Apply a 100 % Reduction/Enlargement to

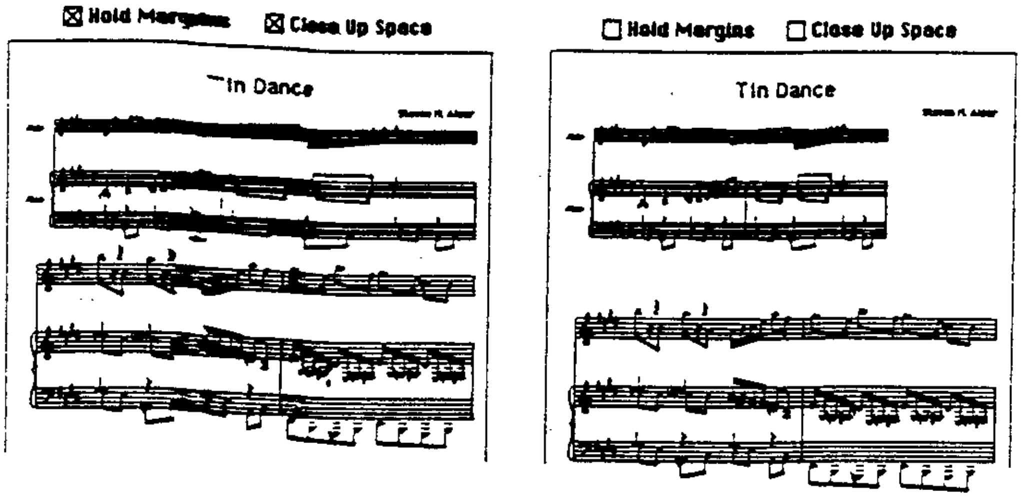
This Note.

- Type 200 and click OK. You've just doubled the size of the note (or made it 200% of its original size). To restore it, you must click precisely at the spot the *normal size* notehead was. The box reappears. Click Delete. (The reduction and enlargement effects of this tool are not cumulative. If you make a note half its size [50%] and then decide to reduce it *again* by half, you would type 25% the second time, not 50%.)
- Scroll to measure 1. Click the *stem* of the first group of eighth notes in the top staff. The dialog box appears, but this time it mentions an *entry group*—a chord or a series of beamed notes. When you enlarge or reduce an entry group, any accidental, lyric or dynamic attached to it is also reduced or enlarged.
- Type 50 and click OK (or press Enter). You've just created cue notes.

These are the only two powers of the Reduce/Enlarge Tool in Scroll View.

- Choose Page View from the View menu. After a moment, Finale displays the full-page view. Drag the scroll box in the right horizontal scroll bar all the way to the left.
- Click to the left of the top staff (on the staff name "Flute"). The dialog box appears, this time asking how much to resize the *staff*.
- Type 80 and click OK. When the next box appears, click This System Only. You've just created a cue (or rehearsal) staff at 80% of the normal staff size.
- Click *between* two staves to the left of a system (on the staff name "Piano"). When the dialog box appears this time, there are two new options—Hold Margins and Close Up Space.

Finale is asking whether or not it should maintain the page margins as it resizes the music. If you don't click Hold Margins as you reduce the music, the system will shrink in *both* dimensions, thus reducing its width. If you do select Hold Margins, Finale will hold the system at its current margin-to-margin width but reduce the music in it so that more measures fit on the line.



If you reduce a system with Hold Margins and Close Up Space selected, the music gets smaller, but the system still stretches from margin to margin, and the space between it and the following system is reduced proportionally (left). If neither option is selected, the system shrinks in every direction, including horizontally, but the space between it and the next system doesn't change (right).

Finale also wants to know whether it should maintain the amount of blank space between this system and the next one, or whether you're reducing that distance as well. If you want to tighten up the space between this system and the next, click Close Up Space.

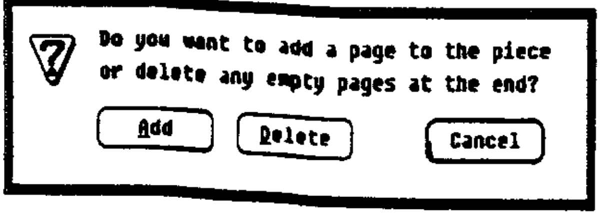
- Type 75. Click Hold Margins and Close Up Space. Click OK (or press Enter). Finale asks what region of systems you want to affect.
- Click This System Only. Now try *removing* an enlargement or reduction.
- Click between two staves to the left of the first system (on the staff name "Piano"). Click Delete. In the next dialog box, click This System Only. The system is back to its original size.

So far you've seen Finale resize a single note, an entry group, a single staff, and an entire system. You'll often want to reduce all the music at once, so that you can fit the music on fewer page turns.

If you can't see the upper-left corner of the page, choose Home Position from the View menu (or press CTRL-Z).

- Click the upper-left corner of the page. The Reduction/Enlargement box reappears.
- Type 85. Click Hold Margins. Click OK (or press Enter). Finale now asks you what region of pages you want to reduce.
- Click This Page Through the End of the Piece. Important note: If you use the Reduce/Enlarge tool on a system or a page, as you've just done, you change the measure widths. Whenever you perform any operation in Finale that changes the measure widths, you must tell Finale to compensate by rearranging the layout of measures.
- Choose Recalc Music from the Edit menu. Only now does Finale redistribute the measures. If your purpose in reducing the size of the music was to fit more music on fewer pages, you won't see the results until you choose Recalc Music.

  Using Recalc Music, however, sometimes produces another side effect: if the music now fits on fewer pages, you may see leftover, blank pages still attached at the end of the piece.
- Click the Page Add/Remove Tool. A dialog box appears:



Do you want to add a page to the piece or delete any empty pages at the end?

If you click Delete, all the blank pages will be removed from the end of the piece. (Don't worry. If the music later requires additional pages, Finale will automatically add enough pages to compensate for it.)

- **Click Delete.**

MORE ON THE PAGE LAYOUT TOOL

In Tutorial 4, you used the Page Layout Tool to indent a system. In this tutorial, you'll explore some of its more powerful capabilities.

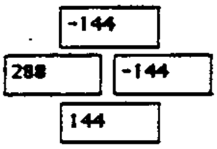
Suppose that you have added names to your staves. Because the default position of the staves is only half an inch from the left edge of the page, you may find your staff names getting chopped off when you print.

For this example, be sure you're in Page View (two scroll bars at the bottom). The staff names next to the first system don't fit on page 1.

- **Click the Page Layout Tool .**
- **Click anywhere on the music.** The Page Layout window appears.

  The problem is not with the page size, which the Page Layout window now displays. You need to change the *margins* around the music.
- **Click Page Margins.** Now you're looking at the margins for the first page.
- **Drag the upper-left handle of the inner rectangle to the right.** As you drag, notice that the numbers in the four text boxes (upper-right corner of the screen) are changing. These units are EVPUs (288 per inch). Therefore, to increase the left margin from half an inch to a full inch, you want the leftmost text box number to read 288.
- **Release the mouse when the number in the left margin box is 288.** Unless you have a very steady hand, you probably changed some of the numbers in the other boxes by accident as you dragged. It's sometimes more efficient to type numbers directly into these boxes than to drag a handle.

  Fortunately, it's easy to restore the page to its original format.
- **Click the Default button.** The Default button restores the margins to their original dimensions. (These dimensions are stored in a master page-layout box called the Format Variables dialog box. For more information about how to change the default page layout, see "Page layout" in the *Finale Encyclopedia* and "Format Variables dialog box" in *Finale Reference.*)
- **Type 288 in the leftmost text box as shown.**



-144

288

-144

144

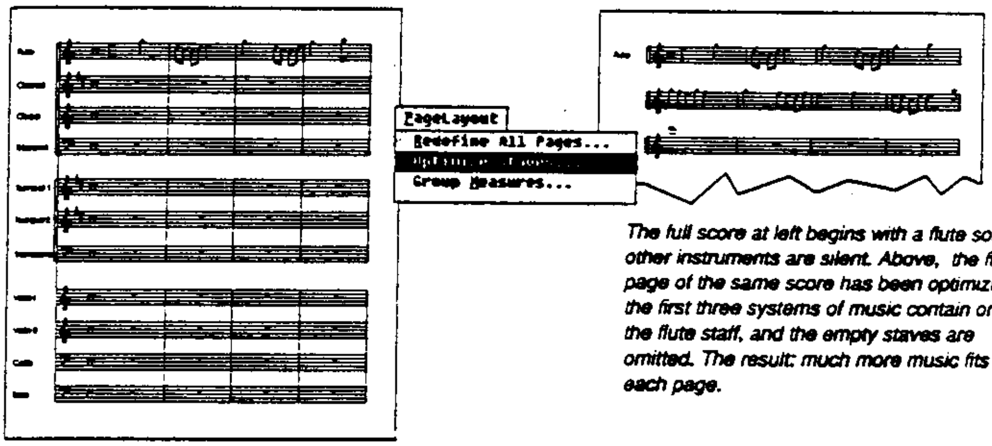
You won't see any effect on the margins, until you perform the next step:

- **Click anywhere in the page display area.** You now have a one-inch (288 EVPU) left margin.
- **Click OK.** You return to the score. The staff names now fit neatly on the page.
- **Choose Recalc Music from the Edit menu.** To change the formatting for *a single page*, the Page Layout window is ideal, particularly when you get used to calculating distances in EVPUs. You can also alter the page layout of all pages at once, using the Redefine All Pages command. See "Page layout" in the *Finale Encyclopedia* for full instructions.

OPTIMIZING STAVES

This section is intended particularly for people who plan to work with orchestral scores.

When a publisher assembles an orchestral score, it's customary to *remove* any staff, within a given system, that *consists entirely of rests.* If you have a score for a 24-piece orchestra that begins with a 16-measure flute solo, you probably don't want that flute solo to consume four full score pages—with 23 blank instrumental staves on each page. Instead, you'd want the flute line to appear by itself for the first few lines of music.



The full score at left begins with a flute solo; all other instruments are silent. Above, the first page of the same score has been optimized; the first three systems of music contain only the flute staff, and the empty staves are omitted. The result: much more music fits on each page.

Finale can perform this suppression of blank staves for you, either one staff at a time or for the whole piece at once, in a process called *optimizing staves.*

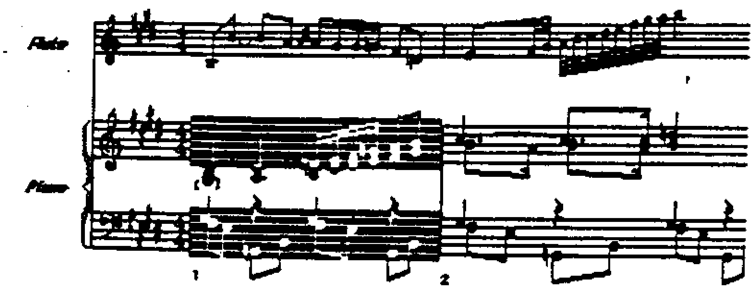
It's very important that you understand how this process works. Let's return to the flute example. When you optimize the first system of music, Finale memorizes the status of all 24 staves. It stores the fact that only the flute part has notes in it and that all the others are empty.

Finale will steadfastly hold on to its conception of the staff arrangement, *even if you later add music* to currently blank staves. If you decide that the clarinet should double the flute solo—and you write the music into its part—Finale will still print only the flute part, because that's the only staff that had music *at the time you optimized staves.* In this instance, you would have to unoptimize and then reoptimize all staves.

The upshot? Optimize staves only after your music is exactly as you want it.

This example assumes you're in Page View, with TUT08.MUS open.

- Click the Mass Mover Tool. Your aim is to erase all the music from the first ten measures of the bottom staves. Here's a technique for selecting large amounts of music without having to scroll to the end of the region:
- Drag-enclose the first measure of both bottom staves, as shown below.



- Choose Set Selection from the Mass Mover menu. A dialog box appears. By filling in the appropriate blanks, you can specify any region in the score that you want to select—even if *none* of it is visible on the screen at the moment. (In the Staff text boxes, you can either enter staff numbers or the first part of the staff name. "Perc" would suffice to specify a Percussion staff, for example.)

  Because you've already selected the first measures of the region you want to erase, Finale has filled in the From Measure and both Staff blanks correctly for you. The only number you have to change is the To Measure blank—the last measure of your selected region.
- Tab to the To Measure text box. Type 10. Click OK (or press Enter). Finale automatically highlights the measures you specified, even though you can't see the end of the highlighted region.
- Press Delete. A dialog box appears. It asks whether you want to erase the notes from the selected measures (leaving blank measures behind) or remove the measures from the piece completely.
- Click Clear. Finale computes for a moment as it erases the music from the selected staves.
- Click the Page Layout Tool . The Page Layout menu appears.
- Choose Optimize Staves from the Page Layout menu. You have two options in the box that appears. You can either optimize the specified systems or remove optimization from them (restore the suppressed staves to the printed image). If you leave the numbers in the "Staff Systems: (1) through (0)" boxes alone, the command affects the entire piece.
- Click OK (or press Enter). Take a look at the score—instead of three staves, only one is visible. Because the other two were blank, they were removed from the display. If you wanted to restore them, you'd repeat this process, but in the Staff Optimization dialog box, you'd choose Remove Staff Optimization.
- Choose Recalc Music from the Edit menu. Remember to choose Recalc Music after any operation that affects the page layout.

If you want more control, you can use the one-system-at-a-time Optimize feature in the Page Layout window. When you're in Staff Systems mode, select the upper-left handle of any system and click Optimized. If you like, Finale will ask you for verification before removing *each blank staff*. In this way, you can remove only *selected* empty staves within each system.

Alternatively, if there's a certain staff—even an empty one—that you want to *retain* even though the display of the other blank staves is suppressed, there's a quick way to ensure that it doesn't get hidden. Finale decides whether or not a staff is empty by looking for *entries*—notes or rests. If it finds nothing in a given system but the default whole rests, the staff gets hidden.

All you need to do to *force* the display of a staff is to enter a "real" whole rest in any one of the measures. (Click a measure with the Speedy Note Entry Tool and press the 7 key.) Finale considers this "real" whole rest an entry, because *you* put it there—as opposed to the default whole rests Finale puts in every empty measure—so it won't suppress the staff when optimizing.

There may even be times when you'll want to optimize your staves *even if all the staves are full of music*. That's because an optimized system has a special advantage: you can drag its staves up and down *in Page View* with the New Staff Tool. (Normally no staff handles appear when you select the New Staff Tool in this view.) You can create new *staff groups* and rebracket them accordingly (see "Brackets" in the *Finale Encyclopedia*). Keep this fact in mind when you have a piece in which the distance between staves (or the bracketing configuration) must vary from system to system.

MEASURE LAYOUT

There are three ways to dictate the arrangement of measures within systems (for example, when you're rearranging measures to avoid awkward page turns).

The first method, which employs the Measure Attributes Tool, is to force a specific measure *always to appear at the beginning of a system.* If measure 33 begins a new chorus in a new key, you might want it to appear at the beginning of a new line of music. Try this using TUT08.MUS. Make sure you're in Page View so you can see the effects you're creating.

- **Drag the left horizontal scroll bar until the counter reads "Go to Page 2."**
- **Click the Measure Attributes Tool** ▤. Handles appear on every barline. Locate measure 16—it's the measure in which you entered Voice 1/Voice 2 notes.
- **Double-click the top barline handle at the end of measure 16.** You click the *ending* barline of the measure you want to begin a new system.

  The Measure Attributes dialog box appears.
- **Click Start a New System of Staves. Click OK** (or press Enter). When you return to the score, the measure will be exactly where it was before. You'll recall that Finale never recalculates the positions of the measures until you ask it to.
- **Choose Recalc Music from the Edit menu.** Now measure 16 will *always* begin a new line, even if you add or subtract music that comes before it. The only way to restore it to its "floating" position mode (so that Finale will move it to other systems as necessary) is to uncheck Start a New System of Staves in the Measure Attributes dialog box.

The second method of arranging measures is to move a measure or two from system to system using a quick Mass Mover technique.

- **Drag the left horizontal scroll bar until the counter reads "Go to Page 1."**
- **Click the Mass Mover Tool** ▤.
- **Click the last measure on the first line of music. Press the Down Arrow key.** Finale calculates for a moment, then redraws the screen with the measure you clicked on the *next system down.* Had you clicked the *second* measure from the right, both measures would have moved to the next line.

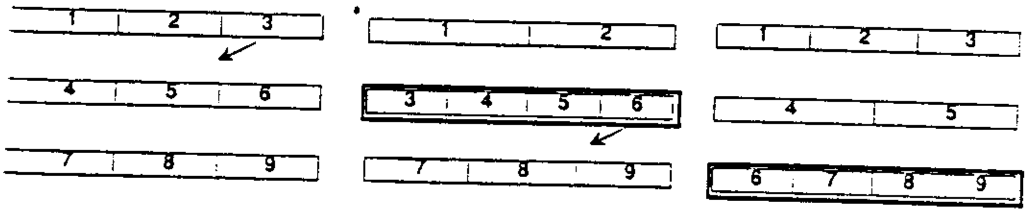
What you've just done is to create a *measure group,* Finale's system of locking measures within a system. You can use both the Up and Down Arrow keys to create measure groups. Just be aware that once a measure has been manipulated in this way, the measures in its new system are *locked* into this arrangement, and they won't be affected by future measure-rearranging commands like Recalc Music or even Start a New System of Staves. The only way to remove measure groups from the piece is to choose Recalc Music from the Edit menu while pressing Shift.

The concept of measure groups is especially useful if you want to force Finale to create a specific number of measures per line—the third method for arranging measures. When you click the Page Layout Tool, the Page Layout menu appears. Choose Group Measures from this menu, and enter the number of measures you'd like to fit in each system. Finale ignores any measure groupings you've made with the Mass Mover Up/Down Arrow technique, and creates new measure groupings of four per line (or any number you've specified). The only way to restore these measures to "floating" status is to choose Recalc Music while pressing Shift.

- **While pressing Shift, choose Recalc Music from the Edit menu.** The second measure returns to the first system.

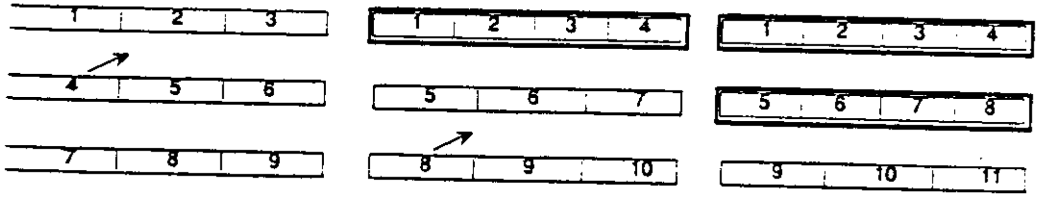
A "Shift–Recalc Music" works exactly like the normal Recalc Music command: it only affects the pages of your piece *from the page you're viewing to the last page.* If you've carefully created measure groups on page 1, you won't disturb them if you perform a Shift–Recalc Music command while viewing page 2.

There's one final aspect of the Mass Mover Up/Down Arrow technique you should know about. When you move a measure from System A to System B, Finale creates a measure group of the measures in System B, including the measure you moved. If you're proceeding through your piece from the beginning, arranging measures one system at a time, you're bound to be frustrated each time you move a measure down to the following system. Why? Because when you move a measure down, you break its *existing* measure group. The measure at the *beginning* of that measure group is now free to "float" back up to its original system, thus undoing the *last* measure grouping you did. (See the figure below.) You'll have the same problem if you proceed from the end of your piece, pushing one measure after another to the system *above* it.



If you proceed through your score using the down arrow key, you'll run into some problems. In this example, measure 3 gets pushed onto the middle system (left). Finale creates the desired layout by placing the four measures into a measure group (middle). If you then try to move measure 6 down to the third system, the movement of measure 6 breaks the existing measure group, thus freeing measure 3 to snap back to its original system—the first system (right).

The solution is to proceed from the beginning of your piece—but using only the *Up* Arrow key to arrange your measure layout. When you force a measure up to the preceding system, it becomes part of a measure group. Because you're proceeding through your piece from top to bottom, existing measure groups are not destroyed when you repeat the process in the *next* (ungrouped) system. This principle also holds true if you proceed from the end of your piece, using only the *Down* Arrow key.



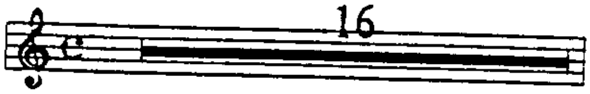
If you proceed through your score from top to bottom using the up arrow key (or from bottm to top using the down arrow), you'll have much better luck. In this example, measure 4 gets pushed up to the first system, where Finale places it into a measure group (left and middle). Trying to fit as many measures on a line as possible, Finale pulls another measure up to the middle system to compensate, so that it again has three measures. If you now push measure 8 up to the middle system, a second measure group is formed, and the first measure group is undisturbed (right). If there are enough measures, Finale pulls yet another measure onto the page to take measure 8's place in the third system.

PART EXTRACTION 1: SPECIAL PART EXTRACTION

For this section, open TUT08A.MUS in the TUTFILES directory—it's the same piece you were working on, prepared for printing.

Finale offers three methods for extracting parts. The first method, called Special Part Extraction, extracts one part at a time. In this mode, Finale uses *Page View* to display the completely extracted part. You can flip back and forth between the full score—Scroll View—and any individual part. You must be in Scroll View before you begin this experiment.

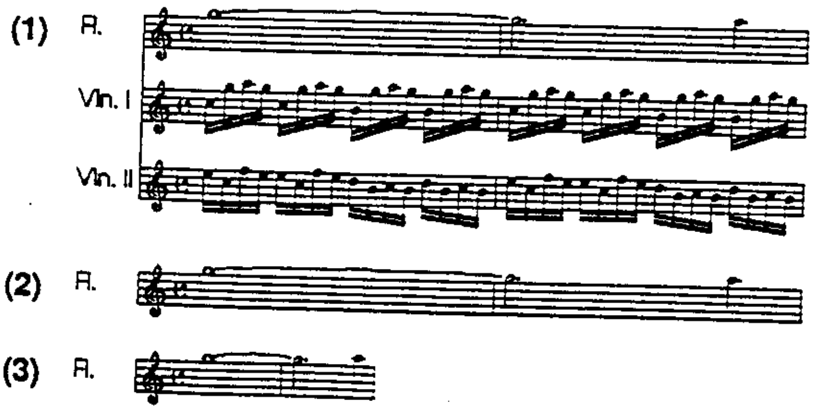
When Finale extracts parts, it lumps together many empty measures into one standard "block rest" with a number over it, like this:



The shape it uses for the rest itself is up to you—you could even design your own in the Shape Designer. For now, load a predefined block rest shape. Two such shapes can be found in the measure rest library (MEASREST.LIB), in the LIBRS directory on your hard disk.

- **Choose Load Library from the File menu.**
- **Locate the LIBRS directory, and double-click MEASREST.LIB.**
- **Click the New Staff Tool ▣, and click the top (Flute) staff's handle.** You specify the part you want to extract by highlighting its handle. To extract a two-staff part, you would highlight the handles of both staves.
- **Choose Special Part Extraction from the Edit menu.** A dialog box appears, enabling you to select which multimeasure rest shape to use.
- **Click *Shape ID*.** A palette of the shapes you've loaded into this file appears.
- **Double-click the second to last shape.** At this point, you can set the font for the numeral that will appear over the rest by clicking the Set Font button. You can also determine the *position* of this numeral by entering a value in the Descent text box. (The descent is measured in EVPUs [288 per inch] from the top line of the staff, which would be zero. A negative number moves the numeral above the staff, a positive number makes it lower.)
- **Click OK.** If you look again, you'll see that there is now a check mark beside Special Part Extraction in the Edit menu. That's your signal that Page View now contains the extracted part. (If you change your mind about the measure rest parameters you just specified, you have to choose Special Part Extraction again to turn it off, then repeat the entire process.) Let's take a look.
- **Choose Page View from the View menu.** There's the extracted part. (If you scroll down so that you can see the middle of the page, you'll see one of the block rests.)

Remember that spacing the music and measures is a task that Finale doesn't perform automatically. You used Mass Mover Metatool 3 to fix the note spacing, and Recalc Music to fix the measure spacing. So, when you look at the extracted part in Page View, the measures are defined *as they were in the score,* not necessarily as befits the extracted part alone. Here's an example:



The measure widths of the extracted part (2) will be the same as they were in the full score (1). Perform Mass Mover Metatool 3 to restore the measures to more appropriate widths (3).

It's a simple matter to fix the extracted part's spacing—use Metatool 3 and Recalc Music, just as you would normally. But if you make this change in Page View *you also change the measure spacing in the full score* (in Scroll View).

If you want to use Special Part Extraction to extract several parts, consider these steps:

(1) Save your work.

(2) Extract the first part into Page View.

(3) Correct the music and measure spacing using Mass Mover Metatool 3 and Recalc Music from the Edit menu.

(4) Print the extracted part (from within Page View).

(5) If there are other parts whose spacing will be similar to the first, perform Special Part Extraction on them, and print. (Chances are you won't have to respace Flute 2 if you've already done Flute 1.)

(6) Choose Revert from the File menu to restore the file to its original condition (with the original measure spacing).

(7) Repeat the process with the next part.

There are two advantages to using Special Part Extraction. First, you don't consume the disk space needed for individual part files, as you do when you use Split Orchestral File (which is discussed in the next section). Second, when you edit the score, you don't have to worry that your changes won't appear in all the parts—because the extracted parts *are* the full score.

The disadvantage is that each time you proceed to a new staff to extract, the formatting for the ones you've already done is gone forever. That's why you may prefer the second method of part extraction.

You can choose Save As from the File menu after each part is extracted and save it under a new name, but that is done automatically with Split Orchestral File.

PART EXTRACTION 2: SPLITTING INTO SEPARATE FILES

If you want, you can have Finale simply create a new file for each staff in your score. With this method, you can format and edit each part individually without affecting the layout of the full score. Extract the parts from TUT08A.MUS.

- Choose Revert from the File menu. Click Yes. You've just restored the file to its original condition. In this part extraction method also, you must begin by loading or creating a block rest shape.
- Choose Load Library from the File menu.
- Locate the LIBRS directory, and double-click MEASREST.LIB. Take this opportunity to load an Allotment Library. If DEFAULT.MUS was in place, you don't have to bother—an Allotment Library has already been loaded.
- Choose Parameters from the Special menu. Now you'll specify which of the multimeasure rest shapes you want to use.
- Click *Shape ID*. Double-click the left block rest shape.
- Click OK (or press Enter). Save the file, then close it.
- Choose Split Orchestral File from the File menu. This menu command is only available when there is no open file.
- Double-click TUT08A.MUS. The Split Orchestral File box appears, asking you for some information about how you want the new files handled. For full explanations of these

options, see "Split Orchestral File dialog box" in *Finale Reference*. Because the process is time-consuming, don't follow it through completely now.

- Click Cancel. The process is automatic, so if you have a large score with lots of staves, you can set it to work and then go to bed. Keep in mind that it requires plenty of hard disk space to store all the resulting files. (If you don't choose the Compress Files option, the process will take less time, but each extracted part file will consume almost as much disk space as the original full score.)
- Open the extracted part files one by one. Make any changes to the file (such as additional page layout, applying Mass Mover Metatool 3 or 4, and choosing Recalc Music) before printing.
- Choose Print Score from the File menu for each file.

PART EXTRACTION 3: PRINT PARTS COMMAND

The third method for extracting parts is to simply choose Print Parts from the File menu. This option gives you no individual formatting powers at all. The measure widths in the score are the measure widths you'll get in every extracted part.

There are two cases where you might prefer this method over the others. The first case is when your measures are all about the same width anyway, and won't need to be individually formatted (and won't need your sensitive eye for arranging page turns). Second, suppose it's midnight on the night before the performance of your piece, and you just don't have time to spend on part-by-part formatting. With this command, the computer will simply churn out parts unattended, one after another.

When you choose the Print Parts command from the menu, you're presented with the Measure Rest Definition dialog box, just as you were when choosing Special Part Extraction. Choose a block rest in the same way, and Finale will take it from there.

MOST OF FINALE

If you've followed the step-by-step procedures to this point, you've seen most of Finale's tools at work. You're not expected to remember all this material, of course. You can keep Volumes II and III handy for quick reference, and you can always reread the in-depth discussions presented in this volume.

But knowing which tools are at your disposal is only half the learning process. Now you need to learn how to maximize the program's speed and power to produce the most music, with the fewest false steps, and in the shortest time.

WORKING FROM TEMPLATES

If you worked through the optional section called "Building a Grand Staff," you know how much time it can take to construct the proper staff system setup before you begin working. It's a good idea never to build any score configuration more than once—save any such *template,* with no music in it, so that you can open it the next time you need a similar system setup.

For starters, you can look at some of the ready-made staff configurations in the TEMPLS directory on your hard disk. You'll find several different kinds of blank scores: a piano-vocal score, a choral setup, a chamber orchestra system, and so on.

You have a couple of options when opening one of them, to preserve the blank original while still having a duplicate to work from. The first option is to open the template by choosing Open from the File menu in the usual way. *Immediately* upon its opening, choose Save As from the File menu, and give it the title of the piece you're about to create. The Save As command always leaves a *duplicate* of the original file open on the screen, and *closes* the original file you've opened.

A quicker way is to use the CTRL key. Try this:

- **While pressing CTRL, choose Open from the File menu.** The standard list box appears, allowing you to choose a file. Locate the TEMPLS directory and double-click it.
- **Double-click the name of the template you want to open.** When the file comes to the screen, it's called Untitled. In other words, the CTRL-Open trick achieves the same result as the Save As technique: it preserves the original template for future use, and brings an untitled copy to the screen.

Actually, you've been using a template since you began learning Finale: DEFAULT.MUS. This special file duplicates itself every time you start Finale (or choose New from the File menu), bringing an untitled copy to the screen.

SEQUENCE OF EVENTS

In general, you can make the most of your time by creating your files in the following order. *Save your work* after each step, and even more frequently if you can. If you're creating a very large score, consider creating it as several smaller, more manageable files. When you're done with these smaller files, you can paste them together using the Cut, Copy, and Insert commands in the Edit menu. See "Copying music" in the *Finale Encyclopedia* for details.

1. Enter the music by using HyperScribe, the Transcription Tool, the Speedy Note Entry Tool (step time), or clicking with the Simple Note Tool. Or import a MIDI file. (See "MIDI files" in the *Finale Encyclopedia.*)

2. Edit with the Speedy Note Entry Tool, one or two staves at a time (hide the others staves by creating a Staff Template). Get used to the numeric keypad commands, including the asterisk (*) to hide or show accidentals, the slash (/) to break and reconnect the beam from the previous note, and the plus and minus keys (+ and –) to alter a note by a half step.

Drag notes right, left, up, or down to adjust their positions or pitches. Press Shift as you drag if you want the note to move *only* horizontally or *only* vertically. Remember that the zero key can be used either to exit or reenter a measure for Speedy Note editing. Listen to your piece to check for mistakes. If you notice that occasional tied notes don't play back properly (Finale reattacks the second note instead of adding its duration to that of the first), select the entire file using the Mass Mover and choose Check Ties from the Mass Edit menu.

3. Put in the lyrics.

4. Space the music correctly, using Mass Mover Metatool 3 or 4, as described in Tutorial 4.

5. Put in chord symbols. Use the Measure Attributes Tool to widen measures where necessary.

6. Put in all the expression markings: dynamics, articulations, and so on. Assign your most frequently used markings to Metatools, as described in Tutorial 6. You program each marking to a number key, 1 through 8. If your piece uses more than eight kinds of expressions (for each tool), then enter eight at a time into your music. For example, program Staff Expression Metatools 1 through 8 to be dynamic markings, go through your whole piece and enter all the dynamics, reprogram your Metatools to be tempo indications (or whatever), and make a second pass. And so on.

7. Choose Recalc Music from the Edit menu, then look it over in Page View. Fix bad page turns or system breaks, using the Mass Mover Up/Down arrow trick.

8. Use the Page Layout Tool to format your piece. Remember to use Recalc Music after each trip to the Page Layout window. Remember, too, that Recalc Music is effective only from the currently viewed page to the end of the piece. Use the Reduce/Enlarge Tool to specify the overall size of the music (by clicking the upper-left corner of the page). Choose Recalc Music.

9. Optimize staves, if necessary, by choosing Optimize Staves from the Page Layout menu. Choose Recalc Music from the Edit menu.

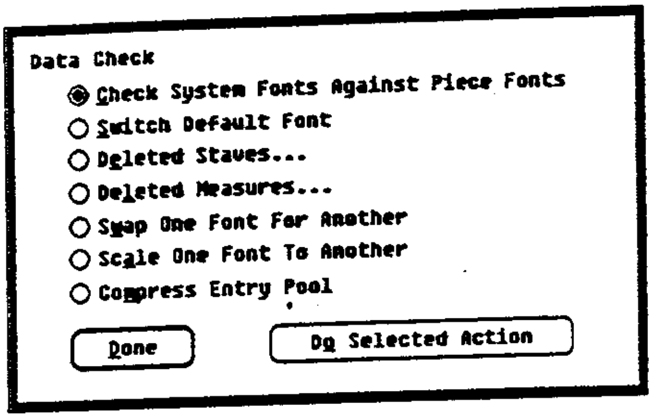
RECOVERING DELETED MUSIC

As you work, Finale actually keeps track of every measure and every staff that's ever a part of a piece—even if you deliberately delete it. A week, a month, a year later, you can return to the file and restore the deleted measures to the piece.

Try this quick experiment:

- Choose New from the File menu.
- Click the New Staff Tool ▣. Double-click the screen to add a new staff.
- Enter some music on the new staff. Probably the quickest way to click the Simple Note Entry Tool ♪, then click a few notes into the measure. Click the Exit icon to return to the full tool palette.
- Click the New Staff Tool ▣, select the handle of the staff you added, and press Delete. The staff disappears.

- Choose Data Check from the Edit menu. The Data Check dialog box appears.



Data Check

● Check System Fonts Against Piece Fonts
○ Switch Default Font
○ Deleted Staves...
○ Deleted Measures...
○ Swap One Font For Another
○ Scale One Font To Another
○ Compress Entry Pool

- Select Deleted Staves and click Do Selected Action. Finale displays a dialog box, letting you know that it's still keeping track of the deleted material.
- Click Appended. Finale displays a counter. When the number increases slowly, you know that Finale is reconstructing your deleted music. As soon as the number starts increasing rapidly (as it will immediately in this test case), you can assume that Finale's finished.
- Click the mouse. You return to the Data Check dialog box.
- Click Done. Finale has restored the deleted staff to the bottom of the score.

As you can imagine, keeping tabs on all this music also increases the size of your file. If you're certain you're never going to need your deleted music again, you can perform the above process, but at the point where you're asked whether Finale should delete or append the staves, click Deleted. Finale then *permanently* discards the staves it's been keeping track of.

Finale doesn't merely track deleted music one staff at a time. If you copy over (or transcribe over) some measures from a single staff, it keeps track of those measures, too. The same Append/Delete process applies to the deleted *measures* in the piece, as well—just choose Deleted Measures instead of Deleted Staves in the Data Check dialog box.

Finally, Finale keeps track of the *notes* within the measures. It calls the notes and rests in your music *entries*. by using the Data Check dialog box you can also purge these from your file, further decreasing the total file size. The "Compress Entry Pool" option in the Data Check dialog box does just that.

To reduce the size of your Finale files as much as possible, then, you should perform all three actions in the Data Check dialog box: Deleted Staves, Deleted Measures, and Compress Entry Pool (in that order, for best results). Keep in mind, though, that you'll never be able to recover this material. Allow some time, too—the Compress Entry Pool command in particular can take a while to complete, especially for large files.

SPEED TIPS 1: MINIMIZING SCREEN REDRAWS

Finale is a vast, graphics-intensive program. Like any such program, it pushes the computer to its processing limits.

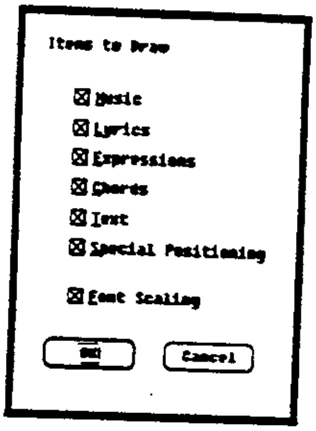
Completing your scores in the sequence described in the section called "Sequence of events" will help. So will using Staff Templates whenever possible, to hide the staves you're not working on. And, as you know, you should do every possible bit of editing work in Scroll View.

There are also several built-in features that speed Finale along. For example, you may notice that Finale redraws the screen every time you move around the score using the scroll bars. But what about moving *diagonally* within your score—from the first measure of the piccolo to the last measure of the bass? You don't want Finale to redraw the screen after each use of each scroll bar (vertical and horizontal).

Here's the answer: *press CTRL* while you drag the first scroll bar. Finale won't redraw the screen at all, because it's assuming you're in the middle of several scroll bar adjustments. You can continue adjusting the scroll bars while pressing CTRL, and Finale will wait patiently. Only when you drag a scroll bar *without* pressing CTRL (or choose Redraw Screen from the View menu) will it redraw the screen.

Another built-in feature is called "Items to Draw." This is a way to specify which items (lyrics, chords, and so on) appear on the screen when you work in Finale. The advantage to "turning off" certain items is that while working exclusively (or *not* working exclusively) with one type of item, you don't have to see others. For example, when working on page layout, turning off everything but Text could really save redraw time.

To use this feature, choose Items to Draw from the View menu.



Items to Draw

☒ Music
☒ Lyrics
☒ Expressions
☒ Chords
☒ Text
☒ Special Positioning

☒ Font Scaling

- **Music** refers to clefs, key signatures, time signatures, notes (including their accidentals, tuplets, and so on), brackets, and repeats.
- **Lyrics.**
- **Expressions** refers to score, staff, and note expressions as well as Smart Shapes.
- **Chords.**
- **Text** refers to text blocks, headers, footers, staff names, text repeats, and measure numbers.
- **Special Positioning** refers to the positioning effects of beat charts, Mass Mover Metatool 3 and 4, and some Special Tools editing. When this item is turned off, beat charts are unavailable.
- **Font Scaling** refers to the calculating that Finale must do if you choose a point size that is unavailable for a particular font. For example, if you create a header in Times Roman 26-point, and only the 24- and 30-point font sizes of Times Roman are installed in your WIN.INI file, Finale has to *scale* the 24-point font to 26 points each time it draws the screen. This is a very demanding task.

When you've set Items to Draw, click OK. These items will always print.

SPEED TIPS 2: RAM DISKS

If you have two or more megabytes of memory (RAM), you have further options for speeding up Finale. When you're working on a piece, the computer has to fetch information from the hard disk every now and then. Each time you scroll, for example, Finale gets the information it needs to draw the screen by reading your file, which resides on the hard disk.

To be perfectly accurate, Finale doesn't read this data from *your* data file. Instead, it creates a set of *temporary* data files, so that your original file is safe in the event of a system failure. These files have names like *~FIN280D.TMP* and appear in the TEMP directory on your hard disk.

The point is that if Finale didn't have to read data from your disk each time it needed to access other parts of your piece, the program would run much faster. It so happens that RAM, Random-Access Memory, delivers information to the computer's "brain" about 100 times faster than the hard disk can. The trick is to store "temp" files *in memory* instead of on the hard disk (while you're working).

You can do just that if you have a *RAM disk*. A RAM disk is not a hard disk or floppy disk. It's a program that can set aside a portion of your RAM to be used like a disk. You can copy files to a RAM disk, save files on it, and so on—just as you can with a real disk. As such, the computer can access any information on it almost instantaneously. These programs are available commercially, but you can get one for much less money if you get one from a user group, or from an on-line database network.

Create the RAM disk first. Most RAM disk programs let you determine the size of the RAM disk you're creating. You should set yours to at least 150% of the size of the file you're going to be working on.

Set your TEMP environment variable to the drive letter of your RAM disk. For example, if your RAM disk is drive D, then enter the following command at your DOS prompt (usually C:) before you start Windows.

```
SET TEMP=d:
```

To avoid typing this command everytime, you can add it to your AUTOEXEC.BAT. Consult your MS-DOS manual or your local Windows dealer for information on modifying an AUTOEXEC.BAT.

When you begin using Finale, you'll notice that some operations, such as screen redraws, Mass Mover operations, and HyperScribe, are quicker.

If, after using the RAM disk technique, you still think you have enough memory (2 megabytes or more) to put one more technique into play, you can load the Finale program files themselves into the RAM disk. Once again, if your RAM disk is drive D, enter these commands (beginning at your DOS prompt) before starting Windows.

```
copy c: \finale\*.exe d:

d:

win finale
```

The last two steps start Finale from the RAM disk. This can also be added to your AUTOEXEC.BAT.

As you use Finale, code-related items (such as dialog boxes), will appear more quickly. (You could load *just* the program files into RAM but, if you have limited RAM, the RAM disk option will produce a more dramatic speed increase.

LINKS TO THE REST OF THE WORLD

Finale is well-connected. It can share its images with graphics programs, its music with sequencers and other notation programs, and even with the Macintosh version of Finale or MusicProse. See "Importing" and "Exporting" in the *Finale Encyclopedia* for more details.

One of the most useful examples of Finale's cooperation with other software is its ability to handle *standard MIDI sequencer files*. These special files contain MIDI playback data. Most sequencer programs can generate and read them, and so can Finale. That means that you can create your music in your favorite sequencer. When it's polished and ready to be notated, save it on your disk as a MIDI file and open it with Finale. When you attempt this process, you'll discover that Finale offers literally dozens of options for separating and recombining the music on the various tracks of the sequencer file. If you want, Finale will even retain the velocity, rhythmic "feel," and controller information from the original sequence. See "MIDI files" in the *Finale Encyclopedia* for complete details.

You're not even limited to using Finale's music font, Petrucci, for displaying and printing your music. You can substitute the Sonata font (from Adobe Systems) or even a font of your own design. See "Fonts" and "Sonata font" in the *Finale Encyclopedia.*

THE NEXT FINALE

Your response to Finale is extremely important to us. The version of Finale you're now using reflects the comments and suggestions of hundreds of users. Please send us your ideas and "wish lists" as you get to know the program. We'll read and consider everything we receive. Finale will continue to become better, faster, and easier to use. Make sure you've sent us your registration card so that you'll be notified when new versions become available.

In the meantime, you have at your disposal a musical tool of tremendous power and flexibility. You've seen some of what Finale can do, and you'll discover other useful features as you become acquainted with it. With the *Finale Encyclopedia* and *Finale Reference* as your guides, you should now be ready to work on a project of your own.

A fascinating experience awaits you. Here's hoping that Finale enhances your musical productivity and creativity in ways you've never imagined possible.